U.S. Department of Energy
Office of Civilian Radioactive Waste Management

DIRECTOR'S PROGRAM REVIEW

PRESENTED TO

Lake Barrett, Acting Director

OCRWM

March 13, 1998

Director's Program Review
Friday, March 13, 1998
Videoconference Rooms: M&O Contractor (Dunn Loring), DOE/Forrestal, Room GF-277, and YMSCO Blue Room

Time (PST)	Subject	Presenter
7:00 AM - 7:05 AM	Recognition of Visitors	Conner
7:05 AM - 7:10 AM	Opening Remarks	Barrett
7:10 AM - 7:20 AM	Program Status Overview Program Performance Status	Rousso
7:20 AM - 8:45 AM	YMSCO Overview AML Accomplishments and Activities Status of Regulatory and Scientific Program Activities for First and Second Quarters of FY98 Status of Design and Engineering December 1997 - February 1998 YMP Performance Measurement	 Dyer Brocoum Williams Spence Kozai
8:45 AM - 9:05 AM	WAST Project Overview WAST Performance Measurement	 Shelor Bokhari
9:05 AM - 9:20 AM	Quality Assurance Overview QA Performance Measurement	Horton
9:20 AM - 9:40 AM	Program Management and Administration Overview PM&A Performance Measurement	 Rousso Trebules
9:40 AM - 9:50 AM	Review of the Day's Action Items	Conner
9:50 AM - 10:00 AM	Questions from Visitors	All
10:00 AM - 10:15 AM	Lunch at Seats	
10:15 AM - TBD	Executive Session	

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U.S. Department of Energy
Office of Civilian Radioactive Waste Management

DIRECTOR'S PROGRAM REVIEW

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Lake Barrett, Acting Director

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March 13, 1998

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

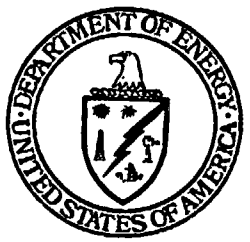
Director's Program Review

Program Overview

PRESENTED TO

LAKE BARRETT, Acting Director

OCRWM



PRESENTED BY

SAM ROUSSO, Director

Office of Program Management and Administration

March 13, 1998

CHANGES SINCE LAST DPR

- **Approved Level 1 Changes**
  - Incorporate Pu Disposition Materials into the CRWMS Baseline
  - Deletion of Obsolete Program - Level Controlled Documents
- **Pending Changes**
  - Initial Issuance of OCRWM Strategic System Management Policy
  - Issuance of CRWMS System Requirements Document (CRD), Rev. 4

ACCOMPLISHMENTS
December-February

- Viability Assessment
- Enhanced Characterization - Cross Drift
- CISF Options Study
- Budget
  - FY 1999 Budget Request
  - FY 1998 Performance Agreement with the Secretary

LEVEL 1
MILESTONE STATUS

WBS	ID Number	Description	Baseline Date	Forecast/ Actual Date
3.1.4	WT314M8003	Issue NWPA Sec. 180 (c) Notice of Revised Proposed Policy and Procedures	02/01/98*	04/01/98
1.2.5	M1AP	Publish 10CFR960 Final Rule	08/31/98**	06/30/98
1.2.5	M1AT	OCRWM Accepts Viability Assessment	09/04/98	09/04/98
3.1.1.1	WT311M7004	Issue Final RFP for Acquisition of RSA WA&T Services	TBD	TBD

* **Commitment in Secretary's Performance Agreement with the President**
** **Date change since last DPR**

U.S Departm nergy
Cost Performance Report - Wor Jown Structure (Format 1)

1. Title	2. Reporting Period	3. Dollars Expressed in Thousands Escalated
Waste Management System	01-Jan-1998 to 31-Jan-1998	6. Report Date
4. Participant Name & Address	5. Cost Plan Date	7. Manager's Signature
OCRWM		

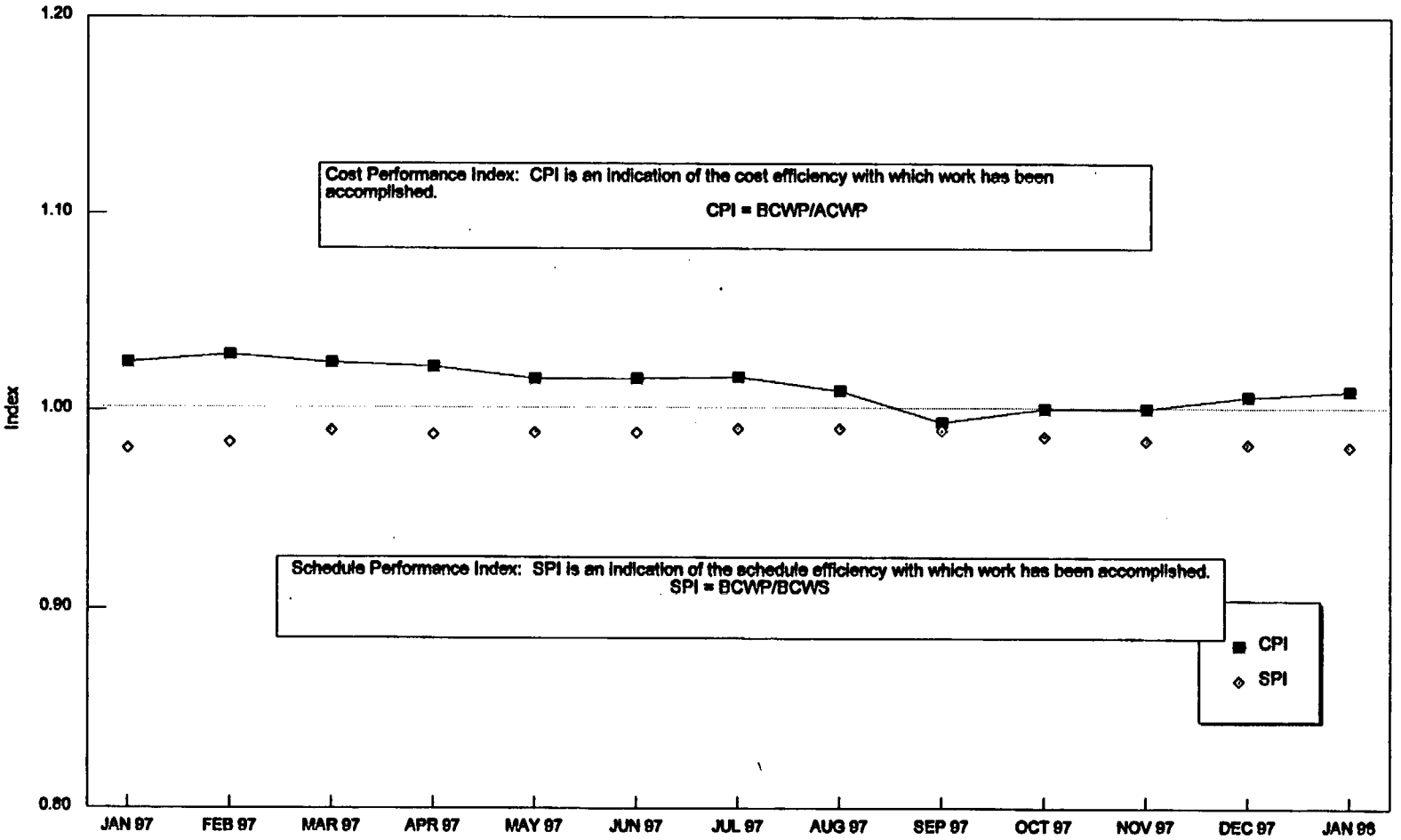
8. WBS Elements	Current Period					FY98 to Date					FY98 At Completion of Work Year End		
	Budgeted Cost		Actual Cost of Work Perf	Variance		Budgeted Cost		Actual Cost of Work Perf	Variance				
Summary Level: 1 Detail Level: 2	Work Sched	Work Perf		Sched	Cost	Work Sched	Work Perf		Sched	Cost	Budget	Latest Revised Estimate	Var.
WASTE MANAGEMENT SYSTEM													
1.O Mined Geologic Disposal System	26566	25715	24688	-851	1027	102680	97742	86173	-4938	11569	298141	308324	-10183
3.O WAST Project	458	438	399	-20	39	1566	1600	1610	34	-10	4958	5628	-670
9.O Program Management & Administration	1997	1997	1273	0	724	8099	8144	6765	45	1379	24694	24377	317
9. Contractor Budget Base	29021	28150	26360	-871	1790	112345	107486	94548	-4859	12938	327793	338329	-10536
10. Financial & Tech. Assissatance	4777	4777	4777	0	0	14118	14118	14063	0	55	38648	38593	55
11. Undistributed Budget											250	250	0
13. Fee											11271	11271	0
14. Baseline Adjustment/Contingency											4289	4289	0
15. Perf. Measurement Baseline	33798	32927	31137	-871	1790	126463	121604	108611	-4859	12993	382251	392732	-10481
16. Management Reserve											14064	13641	423
17. Other											-2053	-2053	0
18. Program Budget Base	33798	32927	31137	-871	1790	126463	121604	108611	-4859	12993	394262	404320	-10058

U.S Departm nergy
Cost Performance Report - Wo .down Structure (Format 1)

1. Title	2. Reporting Period	3. Dollars Expressed in Thousands Escalated
Waste Management System	01-Jan-1998 to 31-Jan-1998	6. Report Date
4. Participant Name & Address	5. Cost Plan Date	7. Manager's Signature
OCRWM		

8. WBS Elements	Current Period					FY96-98 to Date					FY96-98 At Completion of Work Year End		
	Budgeted Cost		Actual Cost of Work Perf	Variance		Budgeted Cost		Actual Cost of Work Perf	Variance				
Summary Level: 1 Detail Level: 2	Work Sched	Work Perf		Sched	Cost	Work Sched	Work Perf		Sched	Cost	Budget	Latest Revised Estimate	Var.
WASTE MANAGEMENT SYSTEM													
1.O Mined Geologic Disposal System	26566	25715	24688	-851	1027	591770	583373	575450	-8397	7923	787231	797601	-10370
3.O WAST Project	458	438	399	-20	39	44023	44057	41173	34	2884	47611	45387	2224
9.O Program Management & Administration	1997	1997	1273	0	724	82255	82267	76139	12	6128	98850	93751	5099
9. Contractor Budget Base	29021	28150	26360	-871	1790	718048	709697	692762	-8351	16935	933692	936739	-3047
10. Financial & Tech. Assissatance	4777	4777	4777	0	0	81656	81656	81601	0	55	108458	108403	55
11. Undistributed Budget											250	250	0
13. Fee											14419	14058	361
14. Baseline Adjustment/Contingency											4289	4289	0
15. Perf. Measurement Baseline	33798	32927	31137	-871	1790	799704	791353	774363	-8351	16990	1061108	1063739	-2631
16. Management Reserve											14064	13641	423
17. Other											-2053	-2053	0
18. Program Budget Base	33798	32927	31137	-871	1790	799704	791353	774363	-8351	16990	1073119	1075327	-2208

FY1997/1998 PROGRAM CPI/SPI GRAPH



FY 97/98	JAN 97	FEB 97	MAR 97	APR 97	MAY 97	JUN 97	JUL 97	AUG 97	SEP 97	OCT 97	NOV 97	DEC 97	JAN 98
CPI	1.024	1.028	1.024	1.022	1.016	1.016	1.017	1.010	0.994	1.001	1.001	1.007	1.010
SPI	0.981	0.984	0.990	0.988	0.989	0.989	0.991	0.991	0.990	0.987	0.985	0.983	0.982

JANCPI7.WK4

SIX MONTH LOOK AHEAD

- **YMP Milestone**
  - Excavation of the ECRB Cross Drift
  - 10CFR960 Final Rule
  - OCRWM Accepts Viability Assessment
- **WAST Milestone**
  - NWPA Sec. 180© Notice of Revised Proposed Policy and Procedures
  - RFP for Acquisition of RSA WA&T Services
- **Program Activities**
  - FY 2000 OMB Request to CFO & FY 1999 AWP
  - TSLCC and Fee Adequacy Report

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

Director's Program Review

Yucca Mountain Project Overview

PRESENTED TO

Lake Barrett, Acting Director

OCRWM

PRESENTED BY

J. Russell Dyer

Acting Project Manager

March 13, 1998

PROJECT STATUS

- On schedule for major deliverables
  - VA on schedule
  - Cross Drift ahead of schedule
    - Early TBM startup
  - Busted Butte ahead of schedule

PRIORITY ACTIVITIES

- Viability Assessment
- Site Recommendation/License Application
  - Enhanced Characterization of the Repository Block
  - Busted Butte Unsaturated Zone Test Facility
- EIS, Environment, Safety and Health
- Administration and Asset Management
- Project Management

ACCOMPLISHMENTS
December-February

Viability Assessment

- Completed the VA Management Plan
- Conducted, participated in, or supported interactions addressing Viability Assessment development:
  - External:
    - TSPA-VA Peer Review Meetings — January 7
    - DOE-NRC Viability Assessment Technical Exchange — January 14
    - Advisory Committee on Nuclear Waste (ACNW) VA Briefings — February 25
      - Current plans and development status of VA Document and supporting information discussed with the NRC and ACNW

ACCOMPLISHMENTS
December-February

Viability Assessment, cont.

- External, cont.:
  - NWTRB Full Board Meeting, Amargosa Valley — January 20-21
  - NWTRB Panel Meeting addressing TSPA-VA — February 11-12
  - Appendix 7 Meeting on waste package materials — February 11-12
    - Presented and discussed test results and modeling assumptions for corrosion rates and mechanisms with the NRC

ACCOMPLISHMENTS
December-February

Viability Assessment, cont.

- Internal:
  - Working Groups: VA Integration Group Biweekly/Periodic Meetings, VA Communications Group Weekly Videoconferences, Program Review Group Meetings
  - LBNL/LLNL VA Briefings — February 2
  - USGS VA Briefing — February 3
    - Briefings conducted to enhance VA Product development integration among YMSCO and Project participants

ACCOMPLISHMENTS
December-February

Site Recommendation/License Application

- Initiated the Drift Scale Thermal Test, M2EP — December 3
- Initiated hydrologic testing in the South Ghost Dance Fault Alcove 7, M2EM — December 18

ACCOMPLISHMENTS
December-February

Site Recommendation/License Application

- Enhanced Characterization of the Repository Block
  - Initiated the Launch Chamber Excavation, M2AH (3 days ahead of schedule) — December 12
  - Completed the Launch Chamber Excavation, M2AJ (1 day ahead of schedule) — February 4
  - Received first TBM shipment, SC110M3 (on time) — February 20
  - Baseline schedule for TBM startup at the Cross Drift is April 17, 1998. **Startup of the TBM may be this month**

ACCOMPLISHMENTS
December-February

Site Recommendation/License Application, Cont.

- Accepted the Decision Documentation Management Plan, SL23DM3 — January 13
- Busted Butte Unsaturated Zone Test Facility
  - Initiated Excavation of Busted Butte, M2AS — December 18
  - Completed Excavation of Busted Butte, M2AY (7 days ahead of schedule) — January 30

ACCOMPLISHMENTS
December-February

EIS & Environment, Safety, and Health

- EIS and ES&H activities continue to remain on schedule
- EIS Accomplishments:
  - Briefed EIS progress to NWTRB on January 20, 1998
  - Data collection and impact analysis continues for preparation of preliminary draft EIS chapters

ACCOMPLISHMENTS
December-February

EIS & Environment, Safety, and Health, cont.

- ES&H Accomplishments:
  - A YMP air quality permit compliance inspection by State of Nevada air quality personnel resulted in no occurrences of noncompliance
  - Delivered the Annual Site Environmental Report to DOE Headquarters, State of Nevada, American Indian tribes, and the public
  - Preparations continue for technical, scientific, and administrative support for Water Appropriations Permit Hearings
    - Prehearing scheduled for April 29, 1998
    - Hearing scheduled for May 26-29, 1998

ACCOMPLISHMENTS

December-February

EIS & Environment, Safety, and Health, cont.

- ES&H Accomplishments, cont.:
  - Delivered six regulatory compliance reports to the State of Nevada and other interested agencies
    - Groundwater Monitoring Report, SSH131M3 — February 4
    - Ambient Air Monitoring Permit Report, SS9905 — February 25
    - Underground Injection Control Permit Report, SS9820 — January 27
    - Socioeconomic Monitoring Employment Data Report, SS10010 — December 31
    - Annual Nevada Combined Agency Hazardous Substances Info Facility Report, SS9961 — February 6
    - Biennial Hazardous Waste Report, SS9955 — February 25

ACCOMPLISHMENTS
December-February

Administration and Asset Management

- The draft TRW Contract Transition Plan was distributed for review on February 27, 1998. A transition meeting was held on March 11, 1998, to discuss comments received. As a result of this meeting, a revised draft is to be submitted for final comments on March 16, 1998. It is anticipated that the Final Transition Plan will be submitted for signature by March 19, 1998
- The DOE and M&O have initiated a joint Integrated Safety Management System (ISMS) implementation planning team to support the development of the ISMS for OCRWM.
  - Planning sessions will continue on a periodic basis through September
  - Successful implementation is a performance measure in the M&O performance fee

ACCOMPLISHMENTS
December-February

Administration and Asset Management

- The State of Nevada Division of Environmental Protection has approved an alternate approach to meet state EPA requirements in lieu of installing a new liner in the Central Support Area Sewage Lagoon
  - Saves $671K
  - Achieves the same level of environmental protection

ACCOMPLISHMENTS
December-February

Project Management

- Prepared YMP input to the FY99 budget
- Accepted the LA10 Plan
  - Project Summary Schedule 2002 to 2010
- Completed construction of VA Table of Contents for the WEB
  - Table of Contents has 3 sections
    - Functional descriptions provide brief description of all work performed on the project (includes management)
    - Major Products section reserved for VA and subsequent documents
    - Indices section where all data collected by the project may be viewed

CHANGES SINCE LAST DPR
November - January

Changes Approved November - January:

CR 98/002	Revision to the Project Summary Schedule - Level 2 Milestones
CR 98/003	Ceramic Feasibility Evaluation
CR 98/004	Accelerated QA Implementation for TSPA-VA
CR 98/005	Selected Waste Package Materials Testing Work Scope
CR 98/006	Restructure WBS 1.2.12 and Other Affected WBS Elements

Changes Approved in February:

CR 98/007	Modify WBS 1.2.6 and Associated Project Baseline to add New 4th Level WBS Elements for ECRB
CR 98/008	Add and Adjust Project Baseline Work Scope to Address Performance Evaluation and Measurement Plan (PEMP) No. 11, Goal 4
CR 98/009	Level II Baseline of the Mined Geologic Disposal System Requirements Document (MGDS-RD), Rev. 3

FY 1998 BASELINE
LEVEL 1 MILESTONES

WBS	ID Number	Description	Baseline Date	Forecast/ Actual(A) Date
1.2.5	M1AP	Publish 10CFR960 Final Rule	08/31/98 *	TBD
1.2.5	M1AT	OCRWM Accepts Viability Assessment	09/04/98	09/04/98

* Date change since last DPR

FY 1998 BASELINE
LEVEL 2 MILESTONES

WBS	ID Number	Description	Proposed Baseline Date	Forecast/ Actual(A) Date
1.2.1	M2FZ	Complete MGDS-VA Design Technical Report	08/21/98	08/21/98
1.2.1	M2KR	Complete MGDS Cost Estimate	08/28/98 *	08/28/98
1.2.3	M2EP	Initiate Drift Scale Thermal Test	12/08/97	12/03/97 (A)
1.2.3	M2EM	Initiate Test In Situ (Alcove 7)	12/18/97	12/18/97 (A)
1.2.3	M2EV	Complete PSHA	03/25/98	03/25/98
1.2.3	M2FC	Near Field Models Acceptance	04/23/98	04/23/98
1.2.5	M2EG	YMSCO Issues PR 16	10/31/97 *	10/21/97 (A)
1.2.5	M2ER	Modeling Scenario & Abstract/Peer Review 2nd Report	12/15/97	03/13/98
1.2.5	M2EX	YMSCO Submits Draft Final 10CFR960 to OCRWM	02/09/98 *	03/20/98
1.2.5	M2YY	Submit Final Draft 10CFR960 Rule to NRC	03/10/98 *	TBD
1.2.5	M2FA	YMSCO Issues PR 17	04/29/98	04/29/98
1.2.5	M2FM	Complete TSPA Peer Review Interim Report #3	07/15/98	07/15/98

* Date change since last DPR

FY 1998 BASELINE
LEVEL 2 MILESTONES

WBS	ID Number	Description	Proposed Baseline Date	Forecast/ Actual(A) Date
1.2.5	M2FT	Complete TSPA-VA Analysis	08/21/98	08/21/98
1.2.5	M2FW	Complete LA Plan - VA Tech Component	08/21/98	08/21/98
1.2.5	M2FR	Complete Technical Record for VA	08/28/98	08/28/98
1.2.5	M2KT	YMSCO Accepts Viability Assessment	08/28/98	08/28/98
1.2.6	M2EE	Complete SGDF Excavation	10/31/97	10/08/97 (A)
1.2.6	M2AS	Start Excavation of Busted Butte Facility	12/05/97	12/18/97 (A)
1.2.6	M2AH	Start Launch Chamber Excavation	12/15/97	12/12/97 (A)
1.2.6	M2AJ	Complete Launch Chamber Excavation to Station 00+26	02/05/98	02/04/98 (A)
1.2.6	M2AY	Complete Excavation of the Busted Butte Facility	02/06/98	01/30/98 (A)
1.2.6	M2AK	Start TBM Operation of the Cross Drift	04/17/98	04/17/98
1.2.6	M2AQ	Complete Excavation Across Repository Block to Station 25+00	08/24/98	08/24/98
1.2.9	M2FE	YMP Plan Annual Update	09/30/98	09/30/98

DPR ACTION ITEMS

Action Item #: 1

Action Item: YMSCO, working with RW-50, should determine and report at the next DPR how important documents that are contemporary with the Viability Assessment are tracked in our tracking system to ensure that they are on schedule

OPR: YMSCO

Status: Documents identified:

Companion Documents (HQ)

- TSLCC
- Fee Adequacy Report
- Repository Modular Design, Constrained Funding, Early Receipt Report

Supporting Documents (YMP)

- Site Description - Level 3
- Repository Safety Strategy - Level 3
- TSPA Technical Basis Document - to be a Level 3

YMP documents will be tracked as Level 3 deliverables

DPR ACTION ITEMS

Action Item #:	2
Action Item:	YMSCO should report progress of Cross Drift activities to RW-1 on a weekly basis
OPR:	YMSCO
Status:	Closed - Progress reports provided in YMSCO Weekly Highlights

DPR ACTION ITEMS

Action Item #:	1 (AWP)
Action Item:	Provide RW-1 a list of all Level 2 milestones in the proposed plan that have slipped more than a few days from the current baseline date
OPR:	YMSCO
Status:	Closed

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

AML Objectives, Accomplishments and Activities

PRESENTED TO

Lake Barrett, Acting Director

OCRWM

PRESENTED BY

Dr. Stephan J. Brocoum

Assistant Manager, Licensing

March 13, 1998

OUTLINE OF AML PRESENTATIONS

- AML Approach, Accomplishments, and Activities- S. Brocoum
- Status of Regulatory and Scientific Program Activities and Accomplishments - D. Williams
  - Regulatory Highlights
  - Process Models
  - TSPA
- Status of Design and Engineering Activities and Accomplishments - R. Spence
  - Baseline Simplification
  - Design for VA
  - Important Engineering/Design Activities
  - DOE Waste Forms for VA

AML APPROACH

- Our primary focus for 1998 is to complete the VA, but our overall objective remains completion of a Site Recommendation (SR) in 2001 and a complete, docketable License Application (LA) to the NRC in 2002
  - AML activities are centered on
    - Development of the VA Product and supporting information
    - Addressing NRC's Key Technical Issues (KTIs)
    - Resolving remaining technical issues leading to preparation and submittal of the SR, and if suitable, submittal of a docketable LA

AML APPROACH
(CONTINUED)

- The VA will provide a frame of reference for the interactions necessary to facilitate submittal and review of the LA
  - The LA Plan currently being developed will describe the work needed to progress from VA to LA
- The site investigations and design activities used for the VA are an integral part of the process leading to a SR and LA
- Many of the technical issues being addressed for the VA encompass the NRC's KTIs
  - Recent correspondence from the NRC clearly indicates progress toward resolution of technical issues and the overall Program goal of submitting a docketable LA

AML ACCOMPLISHMENTS

Viability Assessment

- Completed Management Plan for the Development of a VA Document:
  - Identifies key staff and their responsibilities
  - Addresses document preparation, review, comment resolution, QA status, and schedules
  - Includes VA Document Writer's Guide
  - Includes **VA Annotated Outline** describing content of the VA product
  - Will be on the WEB the end of March

AML ACCOMPLISHMENTS

Viability Assessment

- Preliminary Design Concept (Volume 2):
  - Completed preliminary analysis of repository design to evaluate flexibility for the repository to remain open for 300 years
  - Completed degraded waste form criticality analysis for aluminum-clad SNF
  - Approved the MGDS Requirements Document, Rev. 3

AML ACCOMPLISHMENTS
Viability Assessment

- Total System Performance Assessment: (Volume 3)
  - Completed the Waste Form Degradation and Radionuclide Mobilization Expert Elicitation Workshops, January 27-28, 1998. The workshops presented test data to the experts and solicited preliminary interpretations
    - Final Report from the Expert Panel due March 1998
  - Information on the preliminary base case TSPA results were presented to DOE in January 1998

AML ACCOMPLISHMENTS
Viability Assessment

- Total System Performance Assessment (Volume 3):
  - Eight (of 8) draft sections of the TSPA report describing the base case are in DOE review
  - The TSPA Peer Review Panel provided comments to the YMP in January 1998
    - The M&O has provided comment responses to DOE, the responses will be incorporated into the TSPA-VA
    - Additional work has been proposed based on Peer Review Panel comments and will be incorporated into the 1998 work scope if possible

AML ACCOMPLISHMENTS
Viability Assessment

- Total System Performance Assessment (Volume 3), cont.:
  - Reconvened the Waste Package Degradation Expert Elicitation (WPDEE) on February 2, 1998
    - Presented additional data
    - Provided more specific concept of the corrosion environment
    - WPDEE reduced the corrosion rates associated with C-22

AML ACCOMPLISHMENTS

Viability Assessment

- License Application Plan and Cost (Volume 4):
  - Provided proposed changes to the Project Summary Schedule to improve
    - Traceability
    - Completeness

AML ACCOMPLISHMENTS

Viability Assessment

- Costs to Construct and Operate Repository (Volume 5):
  - The LA10 Plan and resource-loaded schedule of activities from 2002 to 2010 received in January will form a basis for the MGDS Cost estimate

AML ACTIVITIES

- VA Document authors are currently writing the five VA volumes
- All seven chapters of the Yucca Mountain Site Description are in preparation
  - The Yucca Mountain Site Description Management Team is preparing for compilation and integration of the seven draft chapters into a final review draft by mid-April 1998
- Planning for the VA and key supporting documents to be put on the Web at the time of Secretarial issuance
  - The hypertext links to VA reference materials will be online within three months of VA issuance

AML ACTIVITIES

- The cool-down phase of the Single Heater test continues
  - Data used to improve understanding of thermohydrology for the VA
- Hydrologic testing in the ESF continues on schedule
  - Results of seepage tests are confirming the model used for this key process in TSPA-VA
- Process abstraction model development in support of TSPA-VA is proceeding on schedule
  - Base case abstractions completed
  - Focus is on sensitivity analyses
- The Probabilistic Seismic Hazard Assessment has been submitted for DOE acceptance review

AML ACTIVITIES

- The reference design for the VA is nearly complete
  - Information required for the performance assessment has been provided
- Resolution of the VA design issues is on schedule
- Waste package materials testing continues
  - Corrosion-resistant inner-barrier materials for the waste package has been changed to nickel-base alloy C-22
  - C-22 provides improved corrosion resistance in the expected environment with no cost penalty

AML ACTIVITIES

- Cross-Drift starter tunnel has been completed and drift excavation with the TBM may start in March
  - Comparisons with predictions of conditions will be made and discussed in the VA as the tunnel proceeds
- Excavation of the Busted Butte UZ Transport Test facility is complete
  - Phase I test boreholes have been completed
  - Phase II test boreholes are being drilled

AML ACTIVITIES

- Continued interactions with the NRC, ACNW, and NWTRB related to
  - Completing responses to the NRC KTI Issue Resolution Status Reports
  - Planning for NRC Technical Exchange on TSPA, March 17-19, 1998
  - Planning for NWTRB meeting in late April 1998
- Independent consultant review of elements of the Cost Estimate is proceeding on schedule

Accepted Deliverables
December - February

WBS	ID Number	Description	Date of DOE Acceptance
1.2.5.4	SL230AA3	TSPA-VA Management Plan	12/02/97
1.2.5.4	SL164XA	Submit Draft Preclosure PA for VA	12/02/97
1.2.4.7	RP120M3C	Emplacement Drift Stability	12/04/97
1.2.1.10	SE3200M4	External Criticality of Plutonium Waste Forms	12/09/97
1.2.3.3	SP230M3	Regional Saturated-Zone Synthesis Report	12/09/97
1.2.1.5	SE506M3	Seals Study Report	12/10/97
1.2.2.4	WP0862A	Spent Fuel Approved Test Materials Procurement	12/12/97
1.2.4.2	RP120M3H	Design Guides	01/09/98
1.2.3.4	SP23QM3	Summary Report Geochemical/Transport Laboratory Tests	01/13/98
1.2.5.3	SLTDMA	First Quarter Statistics of Data Submitted and Incorporated	01/13/98
1.2.3.3	SP23NM3	Site Saturated Zone Synthesis Report	01/16/98
1.2.5.2	SLSTRM3A	Submit Seismic Topical Report-III Annotated Outline	01/28/98
1.2.6.6	SC810M3	Complete ESF Niches 3 & 4 Design	01/28/98
1.2.1.6	SE171M3	ESF-MGDS ICD Revision 0	02/13/98
1.2.5.2	SL21M3H	Submit Quarterly Interaction Summary Report	02/13/98
1.2.5.2	SLPR17X3	Submit Progress Report 17 Appendix A for AM Concurrence Review	02/13/98
1.2.5.2	SLPR17M3	Progress Report 17 to AM Concurrence Review	02/13/98
1.2.5.2	SL21M3J	Semi Annual Regulatory Commitments Report	02/13/98
1.2.5.6	SLSR905E	Draft Site Recommendation Plan	02/13/98
1.2.4.6	RP243AMF	Waste Handling Operations Scoping Study	02/23/98
1.2.9.2	BM5015M3	Submit Draft Post-LA Plan to YMSCO	02/25/98

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

STATUS OF REGULATORY AND SCIENTIFIC PROGRAM ACTIVITIES FOR FIRST AND SECOND QUARTERS OF FY98

PRESENTED TO

Lake Barrett, Acting Director

OCRWM

PRESENTED BY

Dennis Williams

Deputy Assistant Manager for Licensing

March 13, 1998

ACTIVITY OVERVIEW

- Regulatory Highlights
- Selected Process Models
- Total System Performance Assessment (TSPA)

Regulatory Highlights
Resolution Status of NRC Key Technical Issues

- NRC has prepared 6 Issue Resolution Status Reports (IRSR) to implement their process for focused review of DOE's program and resolution of NRC Key Technical Issues (KTI)
  - Reports have been received to date covering 6 of 10 KTI
  - Reports may be updated or revised in the future as additional information becomes available

Regulatory Highlights
Resolution Status of NRC Key Technical Issues, Cont.

- A 2-part process is being implemented to deal with these reports and address the KTIs
  - Near term - Evaluate reports and develop appropriate comments; continue dialogue with NRC staff and management
  - Long term - Ensure adequate evaluation of KTIs in LA.
- Recently the NRC noted that
  - Key processes would be derived from the KTIs
  - Key processes would define the character and scope of regulatory guidance
  - Regulatory guidance will be provided in a standard review plan (SRP) based on the IRSRs for the License Application (LA)

Regulatory Highlights
Resolution Status of NRC Key Technical Issues, Cont.

- KTI: Methods to Evaluate Climate Change and Associated Effects at Yucca Mountain; NRC status report 6/30/97; DOE response 7/30/97
  - Two sub-issues related to climate change resolved
- KTI: Repository design and thermal-mechanical effects; NRC status report 10/29/97
  - Design control process for ESF is acceptable and NRC comments have been addressed
  - Proposed preclosure seismic design methodology (Seismic Topical Report 2) is acceptable (final statement will follow review of Seismic Topical 3)

Regulatory Highlights
Resolution Status of NRC Key Technical Issues, Cont.

- KTI: Unsaturated and saturated flow under isothermal conditions; NRC status report 11/7/97
  - Concluded that resolution achieved on methods to evaluate and bound shallow infiltration
  - Identified 9 open items related to KTI that are considered resolved; 36 open items remain
- KTI: Evolution of the near-field environment; NRC status report 11/7/97
  - No disagreement with the approach being used by DOE

Regulatory Highlights
Resolution Status of NRC Key Technical Issues, Cont.

- KTI: Structural deformation and seismicity; NRC status report 11/12/97
  - Concluded that resolution achieved on
    - Identification of faults that may significantly affect design or performance
    - Viable tectonic models of Yucca Mountain
- KTI: Thermal effects on flow; NRC status report 11/13/97
  - Anticipate no major concerns with DOE's thermo-hydrologic tests

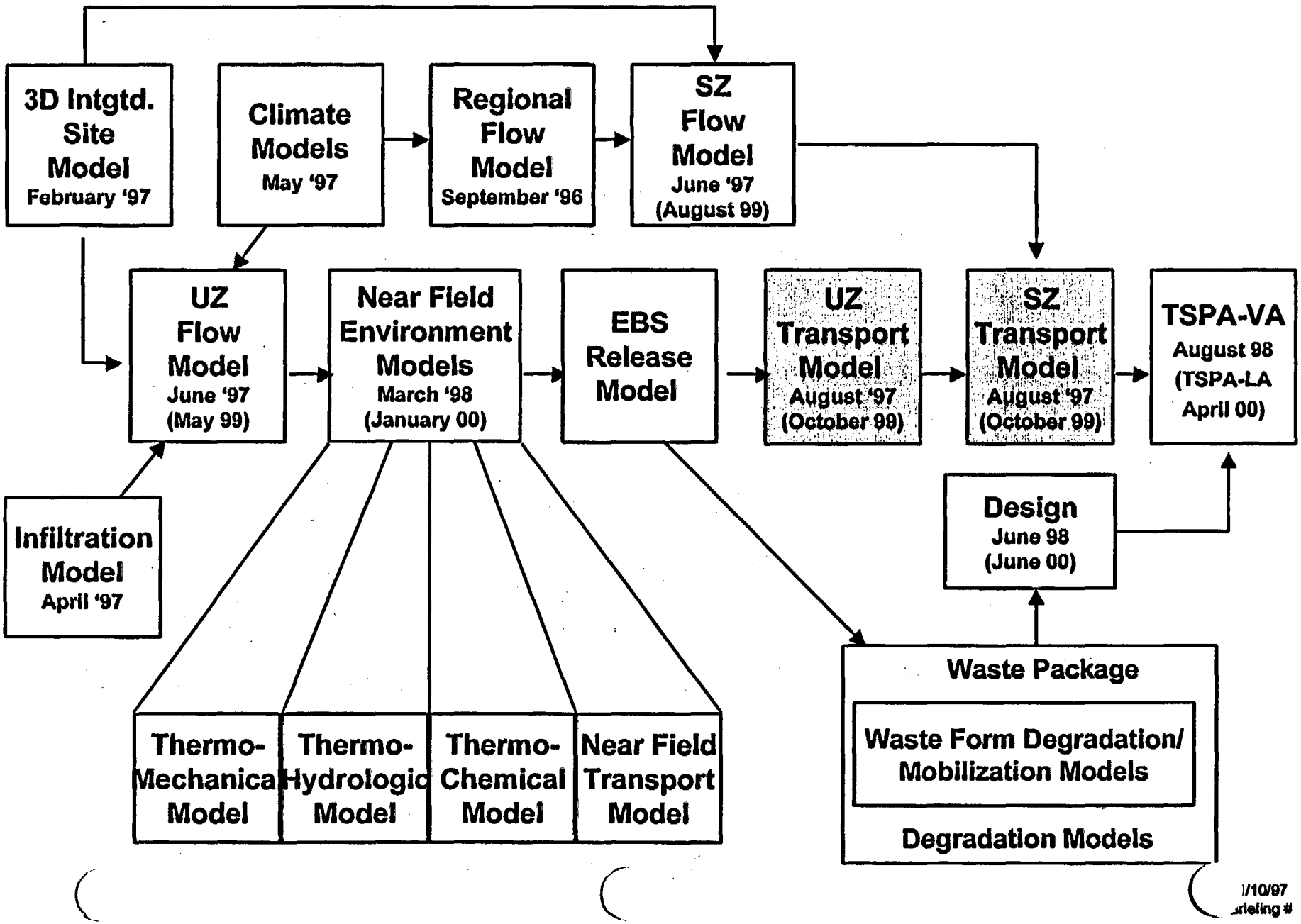
DOE Repository Safety Attributes and Hypotheses

NRC Key Technical Issues	DOE Repository Safety Strategy Hypotheses																	
	Limited Water Contacting Waste Package ★				Long Waste Package Lifetime ②				Slow Rate of Radionuclide Release ③				Concentration Reduction of Radionuclides During Transport ④			Disruptive Processes		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Igneous activity																		x
2. Structural deformation and seismicity																x	x	
3. Evolution of the near-field environment			x	x														
4. Container life and source term					x	x	x	x	x	x	x	x						
5. Thermal effects on flow			x	x														
6. Repository design and thermal-mechanical effects			x	x				x					x	x				
7. TSPA and integration	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
8. Activities related to EPA Standard																		
9. Unsaturated and saturated flow under isothermal conditions	x	x													x			
10. Radionuclide transport													x	x	x			

Regulatory Highlights
Plan for Pre-VA Interactions with NRC

- NRC will review the VA to provide DOE feedback on potential licensing vulnerabilities and prepare the Commission for expected testimony
  - Focus will be on postclosure issues
- Interactions during FY 1998 are focusing on key aspects of information to be presented in the VA to facilitate staff review
  - A list of key 1997-98 VA deliverables was presented to the NRC at the VA Technical Exchange on January 14, 1998; deliverables have been provided as they became available
  - Interactions have been scheduled to coincide with these deliverables

Process Models



Selected Process Models, Cont.

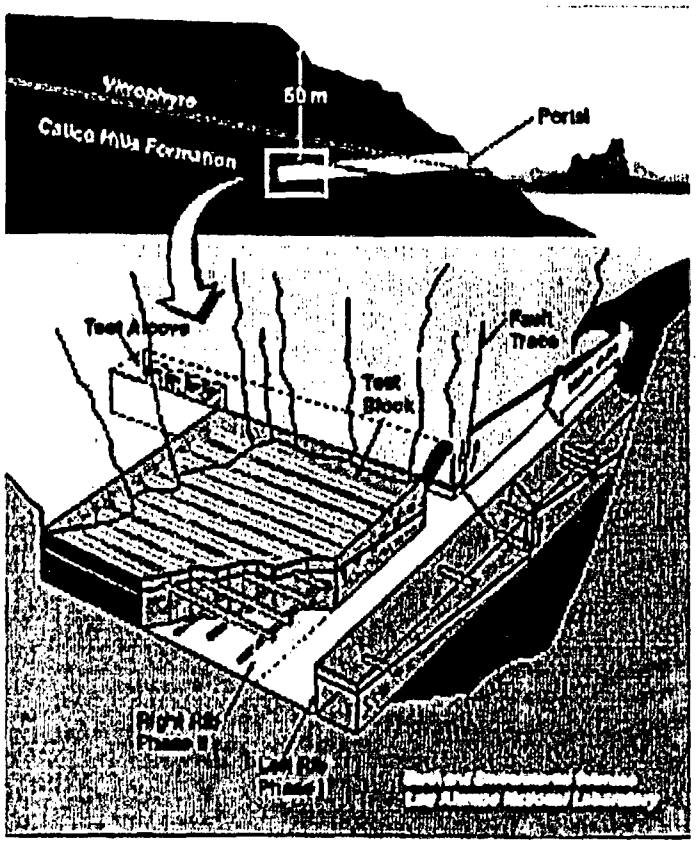
- Unsaturated Zone (UZ) Transport Model ST25BM2; 9/29/97
  - Models aqueous contaminant transport, using the FEHM code, with and without simulated colloid migration
  - Incorporates relevant geochemical, mineralogical, and hydrological data into the transport calculations
  - Qualitative agreement between the dual permeability method of Chlorine-36 migration and observed data below the Tiva Canyon welded tuff was obtained

Selected Process Models, Cont.

- Zeolites below the repository horizon are effective as a natural barrier, retarding the vertical migration of many radionuclides
- Percolation flux numbers from the UZ model form form quantitative basis for modeling drift-scale seepage distribution in the repository horizon
- Demonstrate field-scale applicability of laboratory-scale transport data, and validate UZ flow and transport models
  - Busted Butte

UZ Transport Test at Busted Butte

Southern Busted Butte UZ Transport Test



Excavation completed, borehole drilling is ongoing, Phase 1 injection has begun, March 1998

Test Objectives

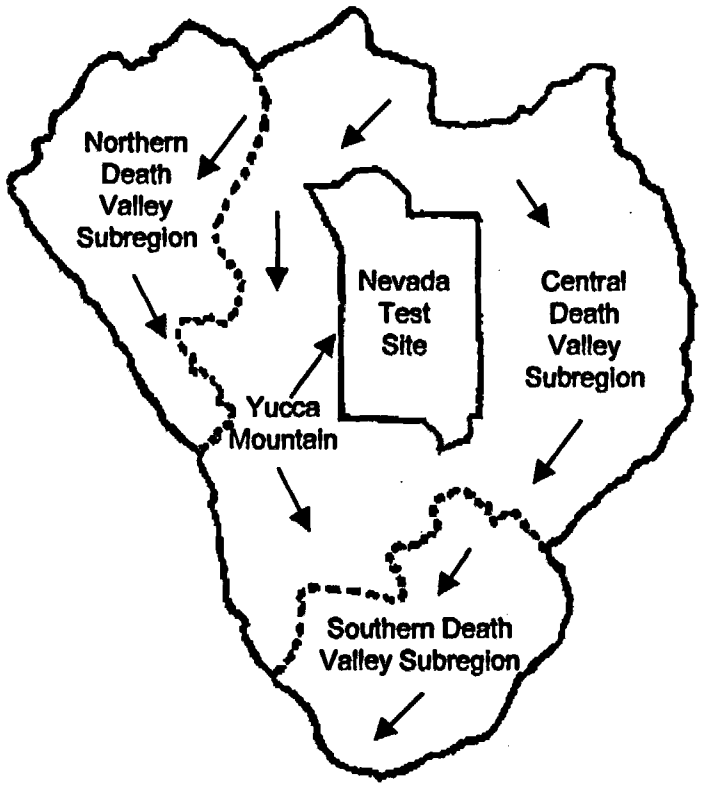
- Evaluate influence of heterogeneities on flow and transport in Calico Hills Formation
- Evaluate other aspects of site, including fracture/matrix interactions and permeability contrast boundaries
- Consider colloid migration in unsaturated zone
- Test use of laboratory sorption data at field scale
- Calibrate and validate site-scale flow and transport model
- Address scaling issues

Selected Process Models, Cont.

- Saturated Zone (SZ) Transport Model ST25BM2A; 9/29/97
  - Models aqueous contaminant transport, using the FEHM code
  - Uses contaminant concentration output from UZ Transport Model as input to SZ Transport Model
  - Uses a flow field generated by the SZ Flow Model, will be integrated with the DOT Combined (NTS/YMP) Regional Groundwater Model (under development)
  - Provides quantitative input to TSPA
  - Base case SZ flow and transport analyses (breakthrough curves) indicate ^{99}Tc, ^{129}I, and ^{14}C (all nonsorptive radionuclides) exhibit fastest breakthrough at 20 km distance
  - Sorptive radionuclides exhibit significantly longer travel times

DOE Combined (NTS/YMP) Regional Groundwater Model

- The US Geological Survey will develop a combined Groundwater Model for DOE
  - Regional groundwater flow models of the Death Valley flow system have been independently developed by YMP and NTS
  - Models developed for different purposes, but similar objectives in mind:
    - Description of flow field for application to radionuclide transport studies
    - Both use MODFLOW computer code
    - Both can be merged into one comprehensive model



Subregions, ground-water basins, and associated flow paths of the Death Valley regional ground-water flow system

Selected Process Models, Cont.

- Result will be a more comprehensive reference model to evaluate groundwater issues in the Death Valley groundwater system, including Yucca Mountain
- Other potential participants in this multi-agency effort are the National Park Service, Nevada State Engineer, Nye County, Inyo County, Fish and Wildlife Service, and the Southern Nevada Water Authority

Schedule

1998	Combine databases
1999	Calibrate combined steady-state model
2000	Steady-state model evaluation/ review
2001	Develop transient model
2002	Calibrate transient model
2003	Transient model evaluation/ review

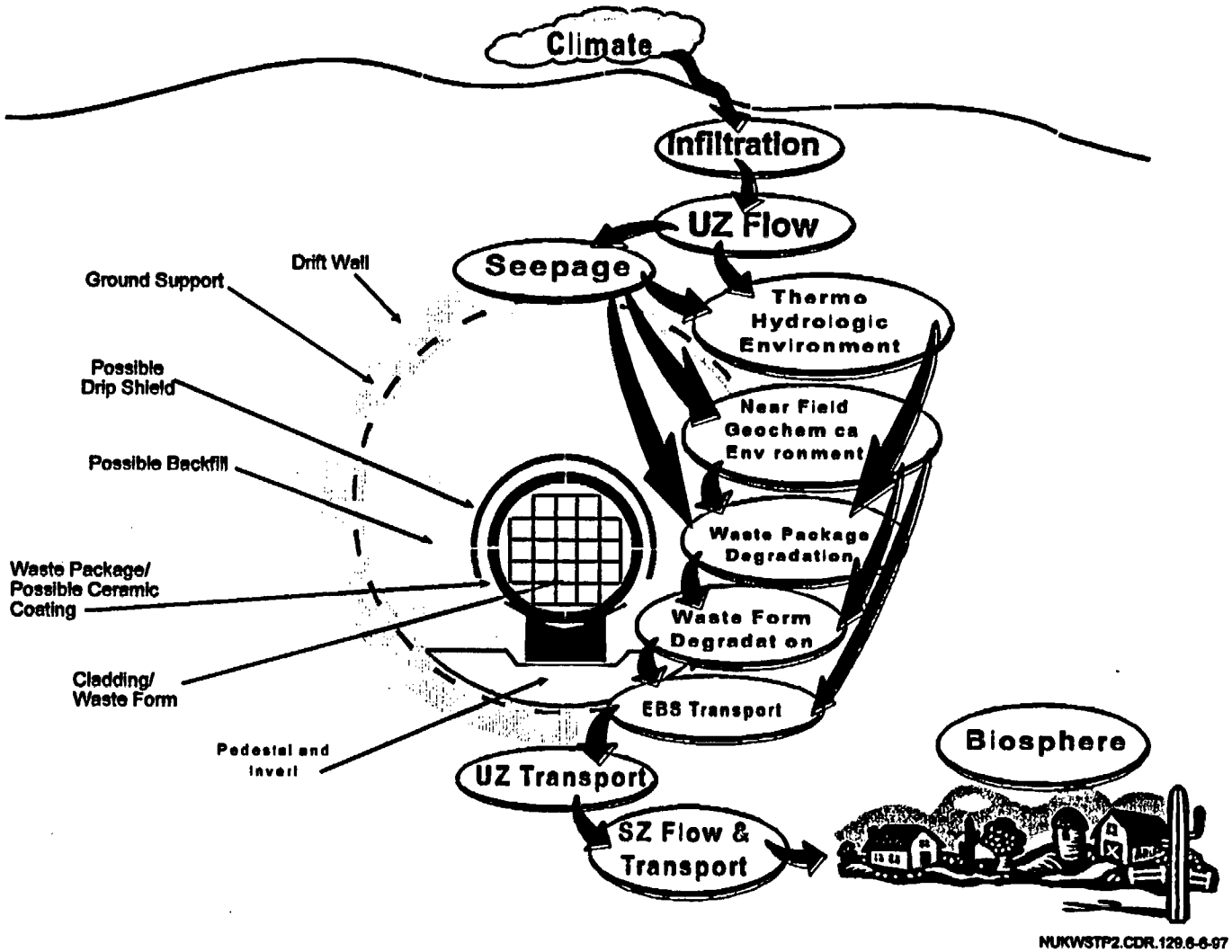
Chlorine-36 Peer Review

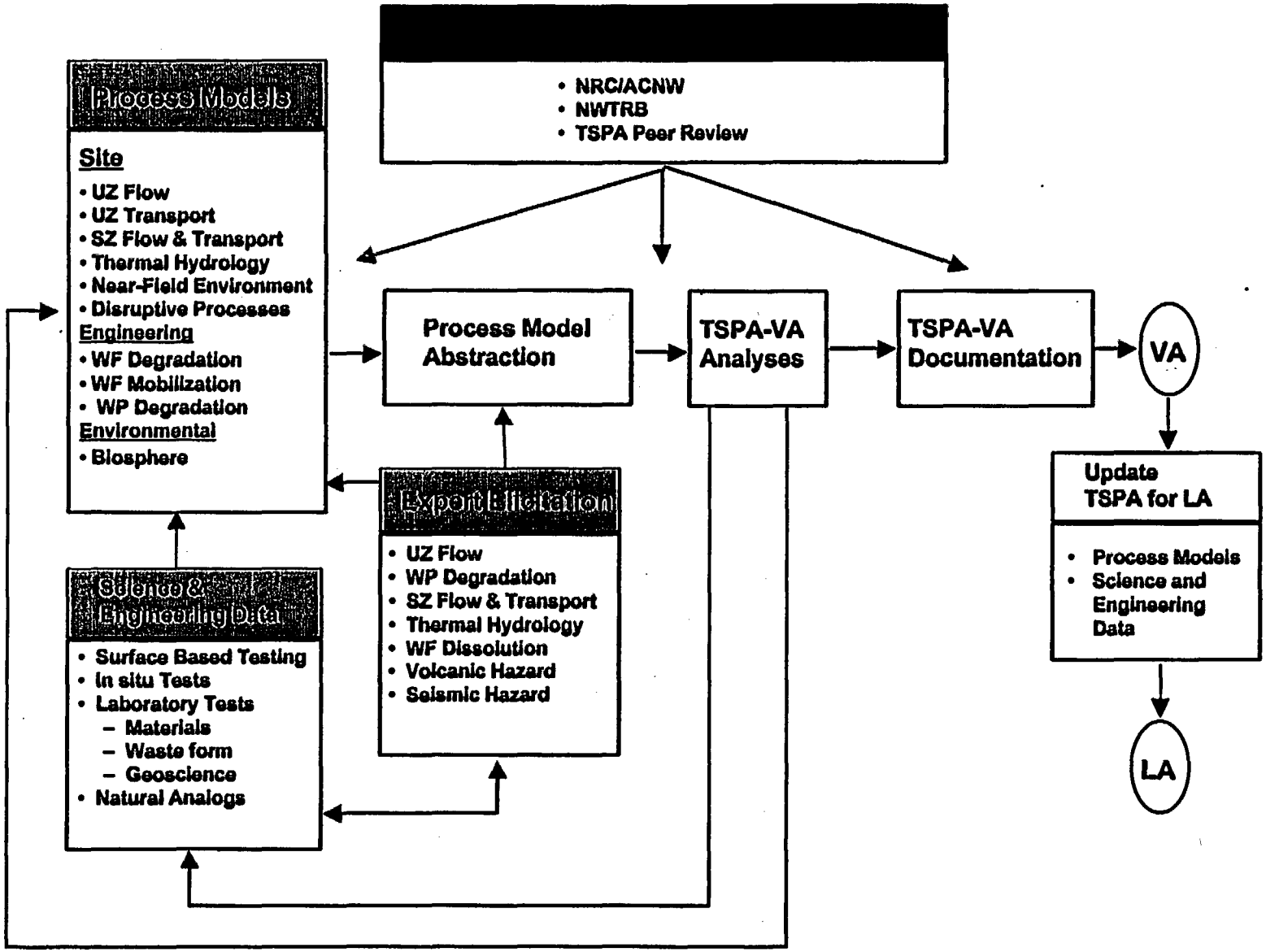
- Objective: provide an independent evaluation of:
  - Sampling, analytical and data interpretation aspects of Chlorine-36 and other environmental isotopes
  - Adequacy of Chlorine-36 data integration with relevant site characteristics to predict groundwater flux at the potential repository horizon
- Draft of Peer Review Report was supplied March 6, 1998
  - Conclusions:
    - Elevated $^{36}CL/CL$ ratios from ESF and other samples originate from infiltration of ^{36}CL from weapons testing fallout during the past 50 years
    - Peer Review Panel was impressed that ^{36}CL was found at all in the ESF, given the masking effects that mixing and dilution can have on measurement

Chlorine-36 Peer Review, Cont.

- Bomb-pulse chlorine is an indicator of fast paths, however the absence of bomb-pulse chlorine does not preclude the presence of a fast path
- Sampling needs to be feature-specific as systematic samples are unlikely to yield useful results
- Panel recommends that further work in isotope hydrology should employ a multiple isotope approach, MITTCCS, which stands for Multiple Isotope Tritium, ^{99}Tc, $^{13,14}C$, ^{36}C, stable isotopes (^{18}O and D)
  - Panel recommends integration of more isotopic work in Busted Butte UZ transport test and testing of Solitario Canyon fault

Components of Total System Performance Assessment



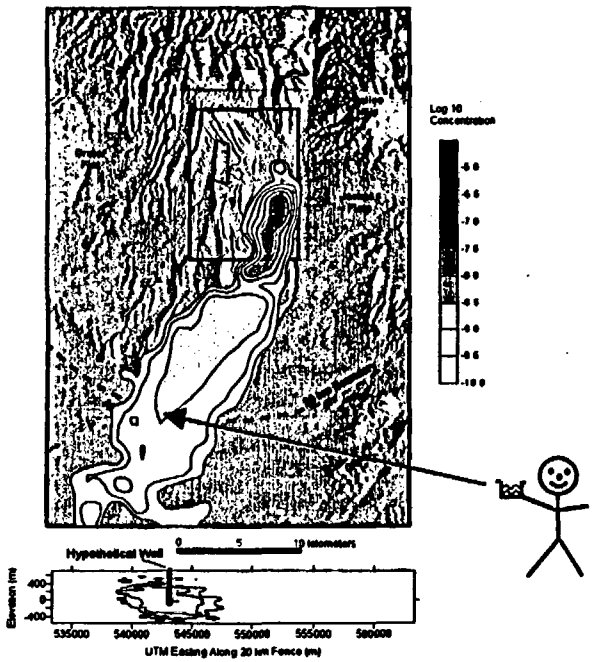


Development of Integrated TSPA-VA

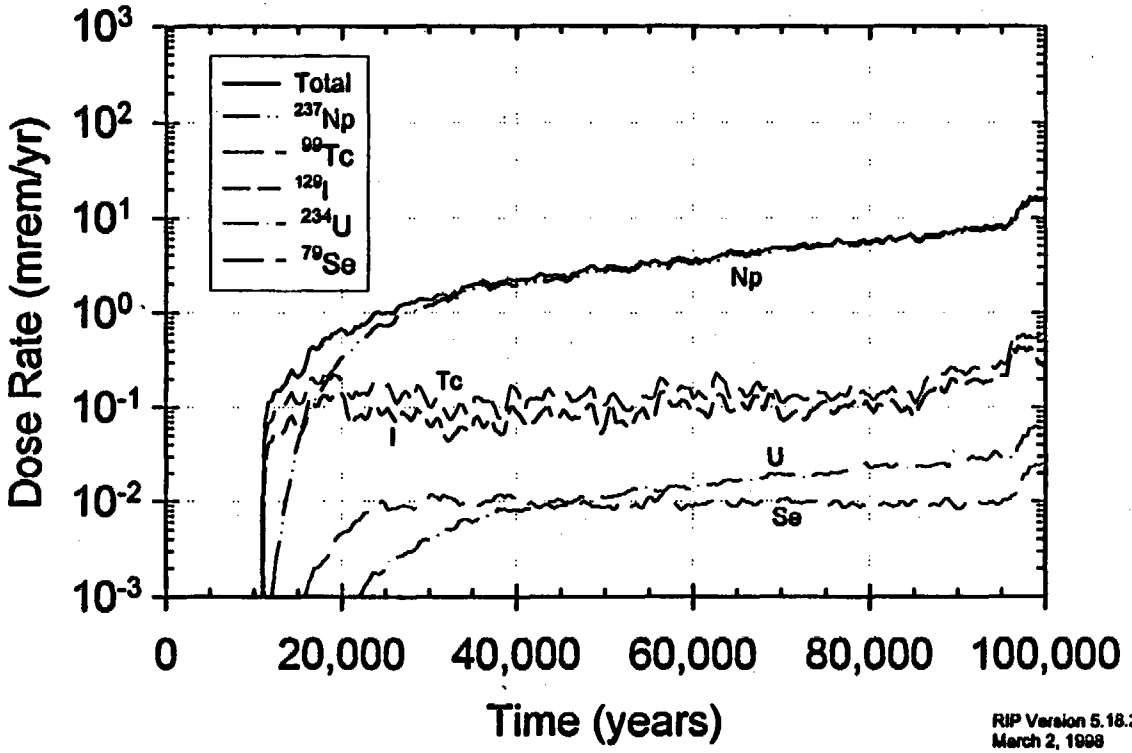
Base Case Results

- "Expected value" dose rate versus time
  - 10,000 years; 100,000 years; 1,000,000 years
- Uncertainty in "expected value" results
  - Complimentary cumulative distribution function (CCDF) of dose rate for 50 realizations
  - Dose rate versus time for 5th, 50th and 95th percentiles and "expected value"
  - Sensitivity in "expected value" results due to:
  - Infiltration rate uncertainty
  - Colloid sorption in unsaturated and saturated zone transport
  - Secondary phases controlling radionuclide solubility on waste form
  - Waste package degradation model
  - Cladding

100,000-yr Dose to "Average" Individual at 20 km

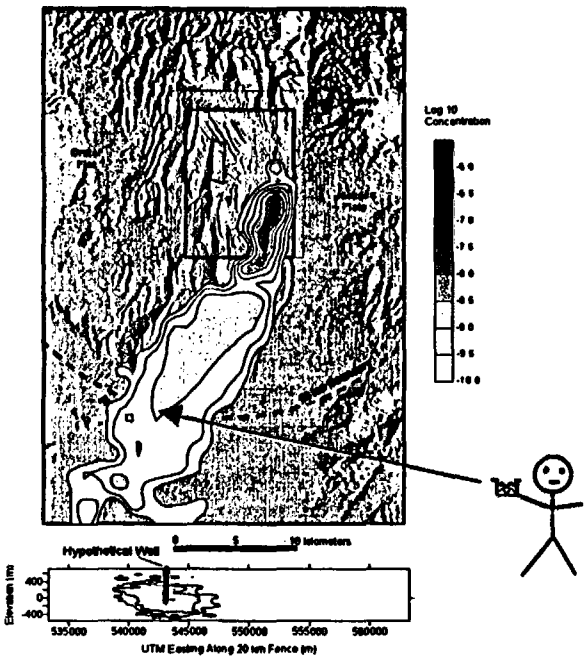


Base Case
100,000-yr Expected-Value Dose-Rate History
All Pathways, 20 km

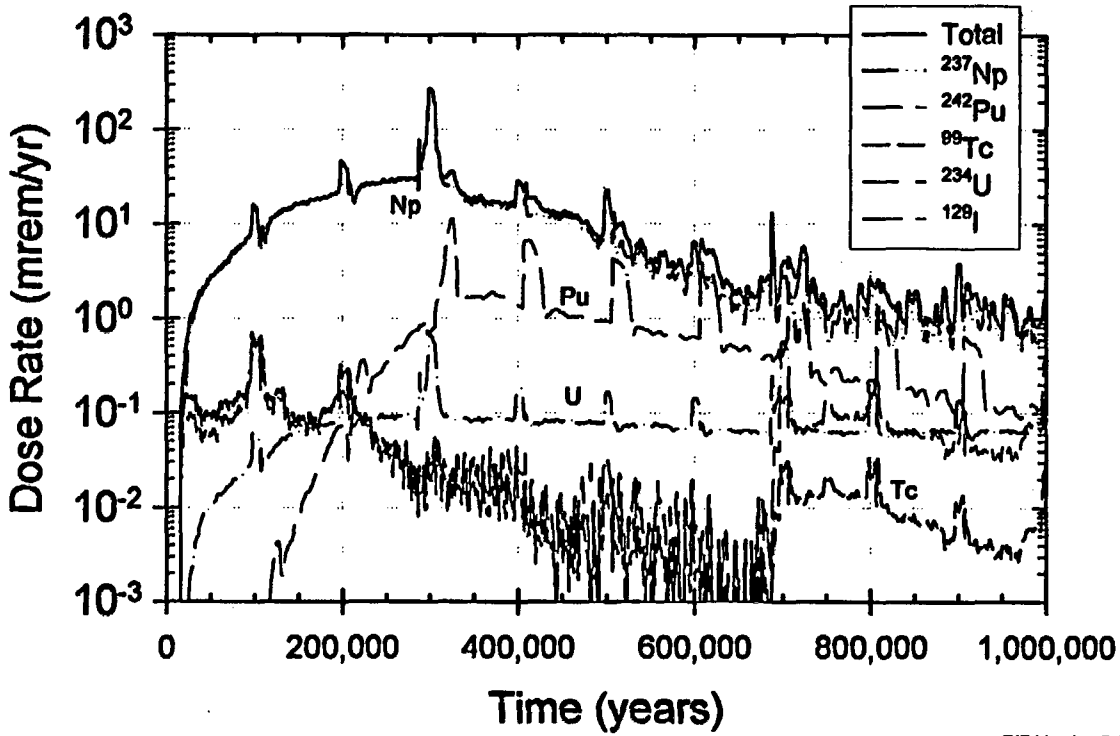


RIP Version 5.18.22
March 2, 1998

1,000,000-yr Dose to "Average" Individual at 20 km



Base Case
1,000,000-yr Expected-Value Dose-Rate History
All Pathways, 20 km



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March 2, 1998

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

STATUS OF DESIGN AND ENGINEERING
DECEMBER 1997 - FEBRUARY 1998

PRESENTED TO

Lake Barrett, Acting Director

OCRWM

PRESENTED BY

Richard E. Spence

Deputy Assistant Manager, Licensing

March 13, 1998

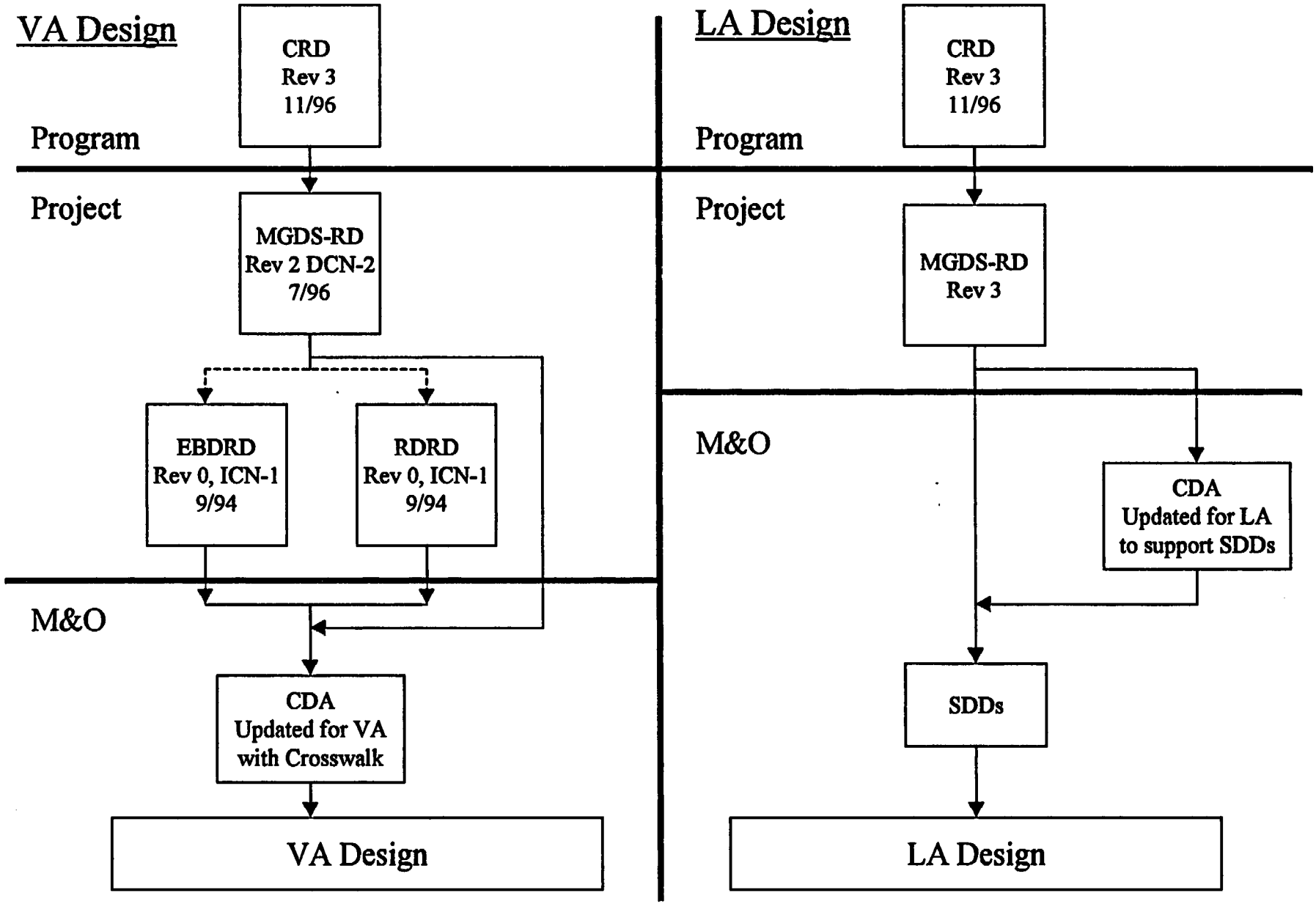
MGDS Design Overview

- Baseline Simplification
- Design for VA
  - Surface Facility Design
  - Subsurface Facility Design
  - Waste Package Design
- Important Engineering/Design Activities
- DOE Waste Forms for VA

Systems Engineering Highlights
Baseline Simplification

- CCB approved revision of the MGDS Requirements Document, Rev. 3 (February 25, 1998)
  - Streamlined YMSCO requirements for design organization
  - Implementation of streamlining occurs as the System Description Documents are issued

Requirements Baseline Transition



Repository Surface Facility Design

- Waste Handling Operations Scoping Study
  - Completed 2/6/98
- Site Layout Analysis
  - Completed 3/2/98
- Site Communications & Control Systems Tech. Report
  - Completed 3/2/98
- Site Electrical Systems Tech. Report
  - Completed 3/2/98
- Site Gas/Liquid Systems Tech. Report
  - Completed 3/2/98

Repository Subsurface Design

- Subsurface HVAC Design
  - On Schedule for Completion - July 31, 1998
- Waste Emplacement Design
  - On Schedule for Completion - August 14, 1998
  - Waste package emplacement is not constrained by criticality control considerations
  - Evaluating need for transporting one waste package over another. If need for this operation (not a requirement) can be avoided, we can eliminate the uncertainties of working on the far side of emplaced waste packages
  - Areal mass loading for VA is anticipated to be 85 MTU/acre (includes commercial SNF only)
  - Recent thermal calculations using updated dry rock thermal properties result in rock wall temperature slightly in excess of 200°C
- Concrete Chemical Evolution
  - On Schedule for Completion - August 31, 1998

Waste Package Design

- Waste Package VA Materials Selection Analysis Resulted in Change of Inner Containment Barrier Material - Nickel-Base Alloy C-22 (M&O CCB - Feb. 2)
- Waste Form Characterization Report Update
  - On schedule for completion - July 31, 1998 (L3)
- Engineered Materials Characterization Report Update
  - On schedule for completion - July 31, 1998 (L3)
- Disposal Criticality Analysis Methodology Topical Report
  - On schedule for completion - Aug. 31, 1998 (L3)

Important Engineering/Design Activities

- Waste Handling Operations Scoping Study
- Waste Package Size Study
- Long-Term Corrosion Testing
- Waste Package VA Materials Selection Analysis
- Disposal Criticality Analysis Methodology
- VA Design Issue Resolution Reports

Waste Handling Operations Scoping Study

- Purpose
  - Determine whether or not the repository design can handle the required waste and waste package throughput
- Study Approach
  - The WITNESS material handling simulation model was developed and used to analyze the performance of the surface and subsurface waste handling operations from waste receipt to waste package emplacement
  - Input to the computer model included waste receipt rate, operations times for each stage of handling, packaging and transport, equipment and crane reliabilities, and rate of emplacement in the repository
- Results
  - The WITNESS computer model determined that the repository design can handle the required waste throughput from receipt to waste package emplacement

Waste Package Size Study

- Purpose
  - Document the technical basis for Waste Package (WP) size for VA
- Study Approach
  - Evaluated alternative WP sizes with respect to rock temperature, areal mass loading, shielding, aging, ventilation, and overall repository performance
- Results
  - For both high and low areal mass loading, overall repository performance is not significantly influenced by WP size
  - The reference WP size (21 PWR assemblies-unshielded) provides desired performance with lowest cost

Long-Term Corrosion Testing

- Objective:
  - Determine long-term corrosion behavior to support material selection and performance prediction
- Status:
  - All 18 corrosion test vessels operational
  - Six vessels each contain carbon and low alloy steel, copper-nickel, and corrosion-resistant material (CRM) specimens
  - Environments include low pH, moderately high pH, and concrete modified pH at two test temperatures (60° and 90°C)
  - Six galvanic test vessels just underway
- Results:
  - Six-month tests completed for all container materials; 1-year tests completed for all but a few of the container materials
    - Copper-nickel alloys showed general corrosion attack
    - CRMs were not attacked except for 825 under crevices
    - Carbon and low alloy steels showed aqueous corrosion in the range of expected values, 80-110 μm/yr (3-4 mils per year)

WP VA Materials Selection Analysis

- Purpose
  - Analyze Waste Package materials for VA design selection
- Analysis Approach
  - Focused evaluation on three material combinations (against the current reference combination)
    - C-22 (inner barrier), carbon steel (outer barrier)
    - titanium (inner barrier), C-22 (outer barrier)
    - C-22 or titanium (as a single barrier)
  - Analysis utilized new WP containment goal (CDA - 3000 yrs), new materials corrosion data, fabrication information, and cost data
  - Analysis may be updated as part of design alternatives evaluations
- Results
  - Alloy C-22 (inner) and A516 carbon steel (outer) recommended over previous reference design materials of Alloy 625 (inner) and A516 carbon steel (outer)

Disposal Criticality Analysis Methodology

- Topical Report Forecast for Completion by August '98 (L3)
  - Neutronics Code Benchmarking Ongoing (Data Procurement Difficulties)
  - Scenario/Configuration Generator Code (recently augmented to estimate configuration probabilities)
  - Consequence Code (recently extended to evaluate transient criticalities)
- Topical Report will be provided to NRC by October '98 (L2)
- Subsequent versions of Topical Report will incorporate additional benchmarking and address NRC feedback

VA Design Issue Resolution Reports

- Issue #9 - Strategy for Mapping Repository
  - Map rock features for 100% of non-emplacement drifts
  - Map 10% of emplacement drifts
  - Observe rock wall features as encountered at TBM head to detect anomalous conditions

VA Design Issue Resolution Reports cont

- Issue #15 - Additional Waste Forms
  - VA Design will accommodate:
    - » 63,000 MTHM Comm. and MOX SNF
    - » 4,667 MTHM HLW and Immobilized Pu
    - » 2,333 MTHM DOE SNF (includes Navy SNF)
- Issue #17 - Waste Package Materials
  - Internal Components: Carbon Steel Basket with Borated SS Plates
  - Inner Containment Barrier: Nickel-Base Alloy C-22
  - Outer Containment Barrier: Carbon Steel (A516)

DOE Waste Forms for VA

- Incorporation of DOE SNF, Navy SNF, and Plutonium Waste Forms into CRWM System
  - DOE and Navy SNF already in technical program baseline; incorporation of Pu via BCP is imminent
  - Licensing strategy for DOE and Navy SNF, based on development of waste disposability specifications, has been presented to NRC
  - Waste package concepts for DOE SNF, Navy SNF, and plutonium waste forms have been developed to determine bounding waste package characteristics
  - Criticality analyses for DOE SNF, Navy SNF, and plutonium waste forms either underway or complete
  - VA will identify the impact of these waste forms on the repository

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

Director's Program Review

Yucca Mountain Project

Performance Measurement

PRESENTED TO

Lake Barrett, Acting Director

OCRWM

PRESENTED BY

Wayne N. Kozai, Acting Director

Office of Project Control

March 13, 1998

COMPARISON OF ORIGINAL CONTRACTOR BUDGET BASELINE (CBB) TO CURRENT CBB ($000)

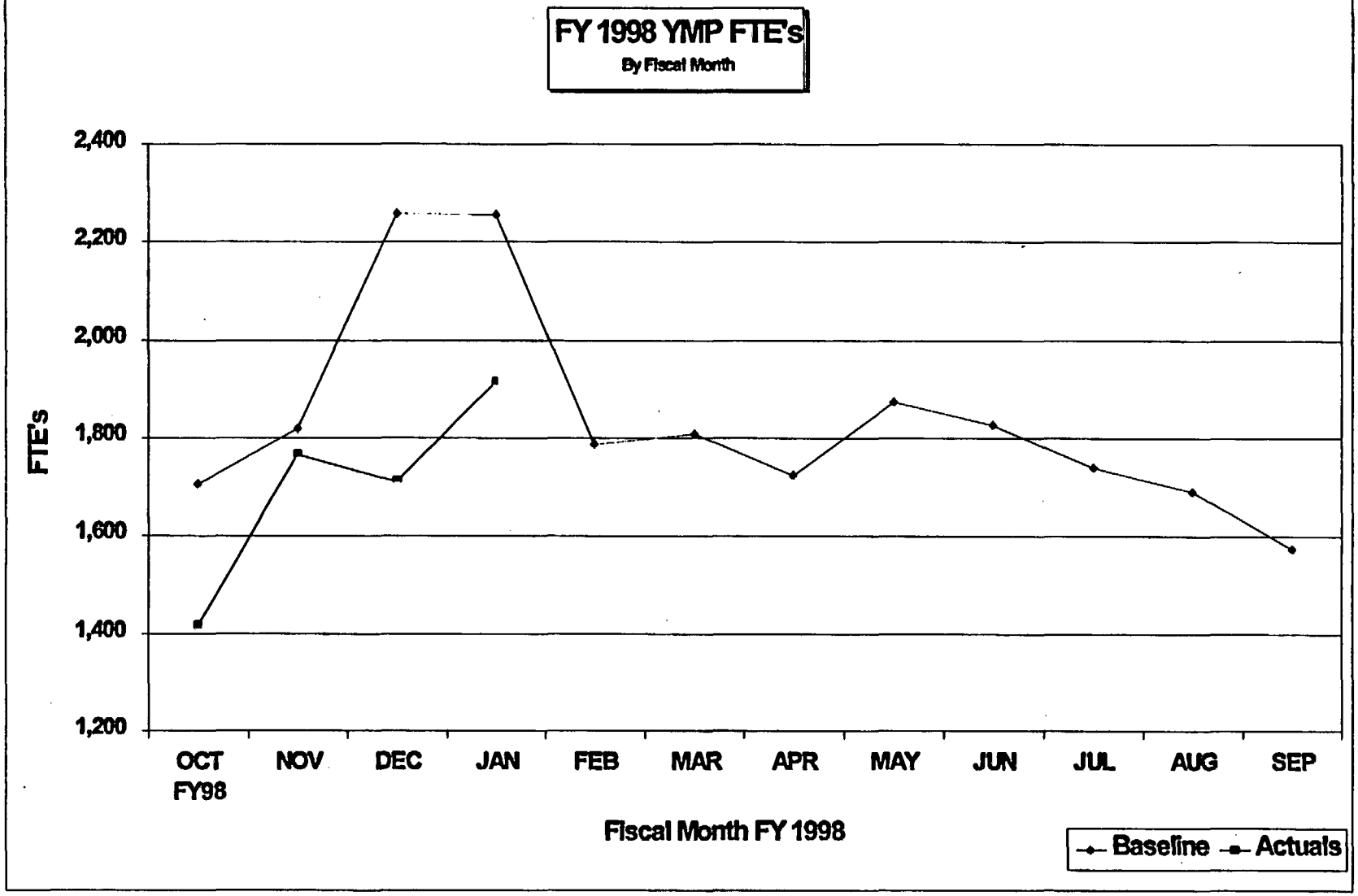
CBB as of 9/30/97 (FY96 and FY97):			$ 489,168
CBB (FY98) as of 10/31/97:			293,791
Changes Since Last DPR:			
CR 98/001	Revision to Project Baseline	$ 894	
CR 98/003	Ceramic Feasibility	295	
CR 98/004	QA TSPA Acceleration	1,464	
CR 98/005	Waste Package Material Testing	988	
CR 98/006	WBS 1.2.12 Restructure	631	
			4,272
CBB as of 1/31/98			$787,231

JANUARY 1998 PROJECT BUDGET PERFORMANCE

	(a)	(b)	(c)	(d)=(b-a)	(e)=(b-c)
	Month of January 1998				
	Budgeted Cost		Actual Cost	Variances	
WBS	Work Scheduled BCWS	Work Performed BCWP	Work Performed ACWP	Schedule SV	Cost CV
1.2.1	1,993	2,138	1,646	145	492
1.2.2	1,935	2,063	1,675	128	388
1.2.3	5,837	5,423	5,934	(414)	(511)
1.2.4	1,908	1,701	2,238	(207)	(537)
1.2.5	2,980	2,868	2,822	(112)	46
1.2.6	4,472	4,139	2,971	(333)	1,168
1.2.7	968	911	744	(57)	167
1.2.8	2,028	2,038	2,372	10	(334)
1.2.9	1,718	1,706	1,461	(12)	245
1.2.12	1,491	1,493	1,481	2	12
1.2.14	325	321	329	(4)	(8)
1.2.15	911	914	1,015	3	(101)
	26,566	25,715	24,688	(851)	1,027

FY96/97/98 PROJECT BUDGET PERFORMANCE

	(a)	(b)	(c)	(d)=(b-a)	(e)=(b-c)	(f)	(g)	(h)=(f-g)
	FY 96/97/98 (ITD)					(FY96/97/98 At Completion)		
	Budgeted Cost		Actual Cost	Variances				
WBS	Work Scheduled BCWS	Work Performed BCWP	Work Performed ACWP	Schedule SV	Cost CV	Budget at Complete BAC	Latest Revised Estimate LRE	Variance at Complete VAC
1.2.1	27,569	26,347	23,927	(1,222)	2,420	41,702	40,185	1,517
1.2.2	33,849	33,285	30,612	(564)	2,673	48,928	48,719	209
1.2.3	136,934	134,028	129,347	(2,906)	4,681	178,383	176,234	2,149
1.2.4	29,355	28,196	27,603	(1,159)	593	43,906	43,094	812
1.2.5	45,699	44,446	43,006	(1,253)	1,440	65,799	66,406	(607)
1.2.6	141,504	140,439	149,206	(1,065)	(8,767)	173,547	188,505	(14,958)
1.2.7	28,800	28,580	25,271	(220)	3,309	36,592	33,050	3,542
1.2.8	45,376	45,386	45,147	10	239	61,757	63,070	(1,313)
1.2.9	39,003	38,984	36,175	(19)	2,809	52,722	50,586	2,136
1.2.12	30,098	30,100	33,137	2	(3,037)	40,380	45,295	(4,915)
1.2.14	8,020	8,016	7,756	(4)	260	10,624	10,640	(16)
1.2.15	25,563	25,566	24,263	3	1,303	32,891	31,817	1,074
	591,770	583,373	575,450	(8,397)	7,923	787,231	797,601	(10,370)

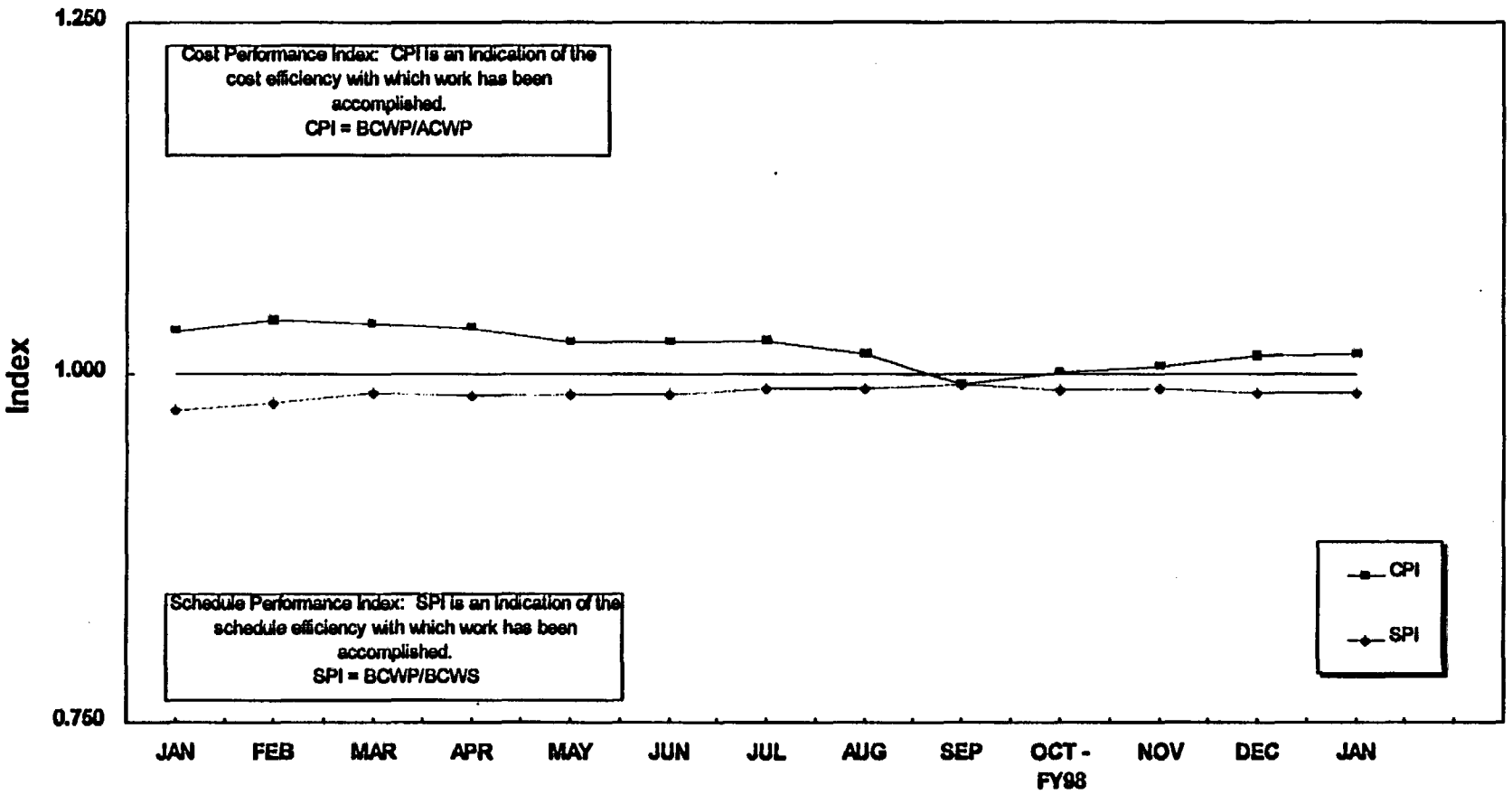


Fiscal Mo.	OCT FY98	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Baseline	1,705	1,819	2,259	2,257	1,786	1,809	1,725	1,874	1,826	1,740	1,691	1,574
Actuals	1,417	1,767	1,712	1,915								

11/10/97
Briefing #

PERFORMANCE ANALYSIS FY 1996/1997/1998

WBS 1.2, CPI & SPI OVERVIEW



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	CT - FY9	NOV	DEC	JAN
CPI	1.030	1.039	1.035	1.032	1.022	1.022	1.023	1.014	0.993	1.000	1.005	1.013	1.014
SPI	0.974	0.979	0.986	0.985	0.985	0.985	0.989	0.989	0.993	0.988	0.989	0.987	0.986

Variance Analysis Report
WBS 1.2.3 Site Investigations
Current Period Schedule Variance

BCWS	BCWP	ACWP	SV
5,837	5,423	5,934	-414

SV: -414 (7.1%)

Drilling-associated Delays

Cause: - drilling problems/delays at WT-24 and SD-6 and consequent delay in associated data collection and analysis (-297).

Impact: - drilling activities will remain behind schedule. Some associated level 4 milestones will be delayed; these activities/milestones are not associated with VA products.

Corrective Action: - drilling activities are expected to remain behind schedule. A Change Request is in process to include additional work performed at WT-24 and will provide some schedule relief. Recovery actions have been developed to optimize remaining drilling and improve schedule for associated activities as presented at MPR in January. Specific impact of latest drilling problems to recovery plan and associated deliverables is under investigation.

Variance Analysis Report
WBS 1.2.3 Site Investigations
Current Period Schedule Variance

BCWS	BCWP	ACWP	SV
5,837	5,423	5,934	-414

SV: -414 (7.1%)

Site Description Report
Cause: - delays in development of site description report (-43) due to competing priorities (support to PA, PSHA, seismic design inputs, near-field model). Additionally, geochemistry portion delayed due to ventilation shutdown at LANL facility.

Impact: - although development of the site description chapters are behind schedule, no level 3 deliverables are expected to slip.

Corrective Action: -will implement a reduction in time allotted for informal review of the various chapters to meet associated milestones. Time allotted for formal review can still be maintained and allow the L3 milestone to be submitted on schedule. Draft chapters were completed in February.

Variance Analysis Report
WBS 1.2.3 Site Investigations
Current Period Schedule Variance

BCWS	BCWP	ACWP	SV
5,837	5,423	5,934	-414

SV: -414 (7.1%)

Single Heater Test Cooling Phase
Cause: - work is ahead of schedule (-43), scope performed in previous periods.

Impact: - none.

Corrective Action: - none required.

Variance Analysis Report

WBS 1.2.4 Repository

Current Period Schedule Variance

BCWS	BCWP	ACWP	SV
1,908	1,701	2,238	-207

SV: The SV indicates a -207K for the month of January

Cause: The SV of -207K for the month is primarily due to planned work on the PISA. A CR (M&O-98-005) is in development to address workscope and budget change from the PISA to WDLA. In addition, our plan called for some ICD work in support of Systems Engineering that has not happen as of yet.

Impact: Impacts have reduced positive float. However, no impacts are expected in delivery of any level 3 deliverables.

Corrective Action: Communicate monthly to everyone the status of M&O-98-005 CR and status of ICD activity.

Variance Analysis Report

WBS 1.2.6 Exploratory Studies Facility

Current Period Schedule Variance

BCWS	BCWP	ACWP	SV
4,472	4,139	2,971	-333

SV:

Cause: The unfavorable schedule variance is the result of small variances reported in power system, thermal test facility, and ECRB equipment procurement activities. A late start was reported for procurement of the South Portal Standby Generator ($63K). Thermal test facility activities are reported behind schedule ($103K) as a result of higher priority work performed on the drift scale test FY97 carry-over work. ECRB equipment procurements were delayed in January ($176K).

Impact: No impacts are expected. Procurement activities will show ahead of schedule performance in February. Thermal test facility work is on track to support DST Facility completion by August 8, 1998.

Corrective Action: None required.

Variance Analysis Report

WBS 1.2.1 Systems Engineering

Multi-Year Cumulative to Date Schedule Variance

BCWS	BCWP	ACWP	SV
27,569	26,347	23,927	-1,222

SV: VA Risk Mitigation CR
Development of SDD/DBE Classification Analyses
Pu Disposition Analysis

Cause: Late start on VA Risk Mitigation CR due to delay in approval (FY97) and delay in staffing at planned levels (FY98)

Impact: No impact on VA. Schedule recovery by March/April 1998

Corrective Action: Personnel requisitions are currently in process. TDY and home office support are being utilized.

Variance Analysis Report

WBS 1.2.3 Site Investigations

Multi-Year Cumulative to Date Schedule Variance

BCWS	BCWP	ACWP	SV
136,934	134,028	129,347	-2,906

SV: -2,906 (2.1%)

Drilling-associated Delays

Cause: - drilling problems/delays at WT-24 and SD-6 (899) and consequent delay in associated data collection and analysis (-600).

Impact: - drilling activities will remain behind schedule. Some associated level 4 milestones will be delayed; these activities/milestones are not associated with VA products.

Corrective Action: - drilling activities are expected to remain behind schedule. Recovery actions have been developed to optimize remaining drilling and improve schedule for associated activities as presented at MPR in January. Specific impact of latest drilling problems to recovery plan and associated deliverables is under investigation.

Variance Analysis Report

WBS 1.2.3 Site Investigations

Multi-Year Cumulative to Date Schedule Variance

BCWS	BCWP	ACWP	SV
136,934	134,028	129,347	-2,906

SV: -2,906 (2.1%)

Site Description Report

Cause: - delays in development of site description report (-286) due to competing priorities (support to PA, PSHA, seismic design inputs, near-field model). Additionally, geochemistry portion delayed due to ventilation shutdown at LANL facility.

Impact: - although development of the site description chapters are behind schedule, no level 3 deliverables are expected to slip.

Corrective Action: -will implement a reduction in time allotted for informal review of the various chapters to meet associated milestones. Time allotted for formal review can still be maintained and allow the L3 milestone to be submitted on schedule.

Variance Analysis Report

WBS 1.2.3 Site Investigations

Multi-Year Cumulative to Date Schedule Variance

BCWS	BCWP	ACWP	SV
136,934	134,028	129,347	-2,906

SV: -2,906 (2.1%)

Seismic Design Inputs
Cause: - delays in preparation of seismic designs inputs (-189).

Impact: - schedule was recovered and level 3 milestone delivered on time in February.

Corrective Action: - none required.

Variance Analysis Report

WBS 1.2.3 Site Investigations

Multi-Year Cumulative to Date Schedule Variance

BCWS	BCWP	ACWP	SV
136,934	134,028	129,347	-2,906

SV: -2,906 (2.1%)

Other

Cause: - miscellaneous accounts (-645) with individual variances less than 4%.

Impact: - none anticipated, variances are within reasonable limits.

Corrective Action: - none required.

Variance Analysis Report
WBS 1.2.4 Repository
Multi-Year Cumulative to Date Schedule Variance

BCWS	BCWP	ACWP	SV
29,355	28,196	27,603	-1,159

SV: The SV shows a -1,159K for the multi-year cumulative to date.

Cause: There are four primary reasons for the variance: 1) The -640K SV carried forward from FY96 and FY97 as a result of late start of discrete work associated with the VA Risk Mitigation and ECRB CRs due to later than expected approvals; 2) This caused a compounding problem with FY98 scheduled work. SV for work in the current FY will decrease as the FY97 work is completed; 3) Repository Surface Design Phase II is being held up because SDD criteria not yet in place. Final VA Design is virtually complete and all deliverable dates were met; and 4) Planned work on the PISA and ICDs that one, CR M&O-98-005 will correct and the ICD activity that will take place later in the year.

Impact: Impacts are schedule risk associated with losing float. However, no level 3 deliverables are currently at risk of being delayed

Corrective Action: Continue to work off the negative schedule variance with additional resources from home office support and EWW as needed.

Variance Analysis Report
WBS 1.2.5 Regulatory
Multi-Year Cumulative to Date Schedule Variance

BCWS	BCWP	ACWP	SV
45,699	44,446	43,006	-1,253

SV: -$1,253 (2.7%)

Cause: The primary cause of the SV is due to:

1) FY97 Deferred work not yet completed and deferral of LSS work in FY97 (-$500K).

2) Late start-up of TSPA-EIS work as a result of late TSPA base case definition (-$300K)

3) Transition of PA to full Q controls; CR was later than planned and delayed subcontract placement (-$250K)

4) A lag in data input to Technical Data Management System due to facility and staffing problems (-$150K).

Impact: Deferred work completion is on acceptable schedule. Delays in TSPA inputs to EIS are being reviewed. Delays in Q controls on PA increase risks but can be managed. Delays in full utilization of TDMS could impact traceability of VA products.

Variance Analysis Report
WBS 1.2.5 Regulatory
Multi-Year Cumulative to Date Cost/Schedule

BCWS	BCWP	ACWP	SV
45,699	44,446	43,006	-1,253

Corrective Action:

1) With the definition of the base case, work has begun on the EIS options and management attention is being applied to ensure EIS support by PA is adequate.

2) Staff and subcontracts are in place for transition of PA to full Q controls. Kick off for TSPA-VA review effort (checking of Base Case runs and inputs) began Feb 25

3) Staff is being put in place for TDMS; 13 new staff are in place & additional requisitions are open. Space has been acquired for new staff. Process improvements are underway to ensure full utilization of TDMS.

Variance Analysis Report

WBS 1.2.6 Exploratory Studies Facility

Multi-Year Cumulative to Date Cost/Schedule and At Complete

BCWS	BCWP	ACWP	SV	CV	BAC	LRE	VAC
141,504	140,439	149,206	-1,065	-8,767	173,547	188,505	-14,958

Cause:

SV: The unfavorable SV is due to permanent flow-through ventilation, Drift Scale Test, South Portal Power System, ECRB equipment procurement, and Title III reports activities. Temporary flow-through ventilation has been provided and allowed reassignment of underground crews to higher priority tasks (Busted Butte, ECRB).

Drift Scale test activities are reported behind schedule as a result of details added in mid-FY97. The schedule was not revised because the changes did not fit the criteria for a scope-change CR. This work was carried over to support DST Facility completion by August 8, 1998, which is expected.

Also, a late start was reported for procurement of the South Portal standby generator, ECRB equipment procurements were delayed in January, and ESF Title III reports were reported as behind schedule. These items will show ahead of schedule performance in February reports.

Variance Analysis Report

WBS 1.2.6 Exploratory Studies Facility

Multi-Year Cumulative to Date Cost/Schedule and At Complete

CV: The unfavorable cost variance is the result of FY96 and FY97 activities exceeding budget. FY96 activities exceeded budget due to ESF tunneling costs that were greater than planned as a result of extremely poor ground conditions requiring additional steel sets, constructor management time and excavation time. FY97 activities exceeded budget mostly as a result of unplanned constructor's insurance/bond costs and SIIS charges. FY98 costs are under budget through January, 1998.

VAC: The unfavorable VAC is mostly the result of FY96 and FY97 activities noted above. Also, FY98 constructor staff levels are greater than budgeted.

Impact: Milestone SC815M3 (Complete Flow-Through Ventilation) will be completed later than scheduled. The milestone will be completed prior to the TBM excavation start. The delay has been coordinated with the DOE. No impacts to any other milestones are expected.

Corrective Action: Actions to reduce the year-end variance are currently being evaluated. No corrective actions are required for the SV and CV.

Variance Analysis Report

WBS 1.2.12 Information Management

Multi-Year Cumulative to Date Cost and At Complete

BCWS	BCWP	ACWP	CV	BAC	LRE	VAC
30,098	30,100	33,137	-3,037	40,380	45,295	-4,915

CV: -3,037

VAC: -4,915

Cause: The CV and VAC are due to the ADPE upgrade, which was funded but not incorporated into the Performance Measurement Baseline (PMB). The overrun is completely attributable to this; however, the VAC is partially offset by underruns in other areas.

Impact: None. The contracts have been funded to cover the upgrade.

Corrective Action: None. The PMB was not updated per DOE direction.

U.S. Department of Energy
Office of Civilian Radioactive Waste Management
DIRECTOR'S PROGRAM REVIEW

WAST Project Overview

PRESENTED TO

LAKE BARRETT, Acting Director

OCRWM

PRESENTED BY

Dwight Shelor, Acting Director

Office of Waste Acceptance, Storage and Transportation

March 13, 1998

PRIORITY ACTIVITIES

- **Waste Acceptance and Transportation**
  - RFP for Waste Acceptance and Transportation Services
  - Standard Contract Management
  - Section 180(c) Development
- **Interim Storage Related Activities**
  - Phase I Centralized Interim Storage Facility (CISF) TSAR - support of NRC Review
  - Dry Transfer System (DTS) TSAR - support of NRC review
  - Actinide-only Burnup Credit (BUC) Topical Report Rev.1 - support of NRC Review

CHANGES SINCE LAST DPR

- None

ACCOMPLISHMENTS
January - February

- **Completed Draft Additional CISF Options (DTS Integration) Study**
  - Evaluates options for Dry Transfer System use at the generic CISF and/or repository surface facilities. Options addressed increased facility throughput, reduced occupational exposure, increased seismic acceleration requirements and additional tornado missile protection. A cost estimate is included in the study.

- **Prepared Draft CISF Support Facilities Trade-Off Study**
  - Identifies vendor-supplied support facilities and services for numerous functions of the Phase I CISF, and investigates the feasibility of subcontracting such services compared to providing dedicated on-site facilities.

ACCOMPLISHMENTS
January - February

- **Transportation External Coordination Working Group (TEC/WG) meeting in Las Vegas, NV on January 20-22, 1998**
  - **Made three presentations on RSC RFP at different workshops**
  - **Co-chaired plenary and breakout sessions.**
- **Provided presentations/briefings to:**
  - **Institute of Nuclear Materials Management (INMM) Conference in Washington, DC on January 14-16, 1998**
  - **Commercial Vehicle Safety Alliance, Radioactive Materials Subcommittee Meeting in Phoenix, AZ on February 9-11, 1998**
  - **Colorado Legislature's Joint Committee on Transportation in Denver, CO on January 8, 1998.**

ACCOMPLISHMENTS (Cont.)

January - February

- **Issued cooperative agreement awards to:**
  - **Council of State Governments - Midwestern Office (Annual Award)**
  - **National Conference of State Legislatures (New 5-year contract)**
  - **National Congress of American Indians (New 5-year contract)**
  - **Western Interstate Energy Board (New 5-year contract).**

LEVEL 1 MILESTONE STATUS

WBS Level	Milestone (ID Number)	BCCB Level	Baseline Date	Actual (A)/ Forecast
3.1.1.1	Issue Final RFP for Acquisition of RSA WA&T Services (WT311M7004)	1	TBD	TBD
3.1.4	Issue NWPA Sec. 180 (c) Notice of Revised Proposed Policy and Procedures (WT314M8003)	1*	2/98	4/98
3.2.2.1	Receive Phase I CISF TSAR safety assessment report from the NRC (WI322M9003)	1**	9/98	9/98
3.2.2.3	Receive DTS TSAR safety evaluation report from the NRC (WI322M8001)	1**	4/98	9/98
3.2.4.1	Receive Actinide-Only BUC safety evaluation report from the NRC (WI324M7002)	1**	11/97	9/98

* Commitment in Secretary's Performance Agreement with the President
** To be changed to Level 2 milestones in the next revision of the baseline

03/9/98

LEVEL 2 MILESTONE STATUS

WBS Level	Milestone (ID Number)	BCCB Level	Baseline Date	Actual (A)/ Forecast
3.1.1.1	Complete Final RFP for Acquisition of RSA WA&T Services (WT314M7002)	2	TBD	TBD
3.1.4	Complete NWPA Sec. 180 (c) Notice of Revised Proposed Policy and Procedures (WT314M8002)	2	12/97	3/98
3.1.4	Complete Draft Application Packages for NWPA Sec. 180 (c) Grants (WT314M8001)	2	6/98	6/98
3.2.1.1	Complete Conceptual Design for Non-Site-Specific Phase II CISF (WI321M9003)	2	8/98	To Be Deleted
3.2.1.1	Approve CISF Design Requirements Document Rev. 2 by POBCCB (WI321M8001)	2	12/97	9/98

DPR ACTION ITEMS

- **OWAST, working with RW-50, should ensure that there is an OCRWM record of the results of the study on disposability of dual-purpose casks and how those results were used in the OCRWM Program**
  - **Closed - A decision memo has been submitted for RW-1 approval.**
- **By the end of January, OCRWM should make a decision on the future MPC work and on the source of funding**
  - **Closed - Funding for MPC work has been included in the FY 1999 budget request.**

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

DIRECTOR'S PROGRAM REVIEW

WAST PROJECT

Performance Measurement

PRESENTED TO

LAKE BARRETT, Acting Director OCRWM

PRESENTED BY

SYED BOKHARI,

Senior Project Management Integrator

Office of Waste Acceptance,

Storage and Transportation

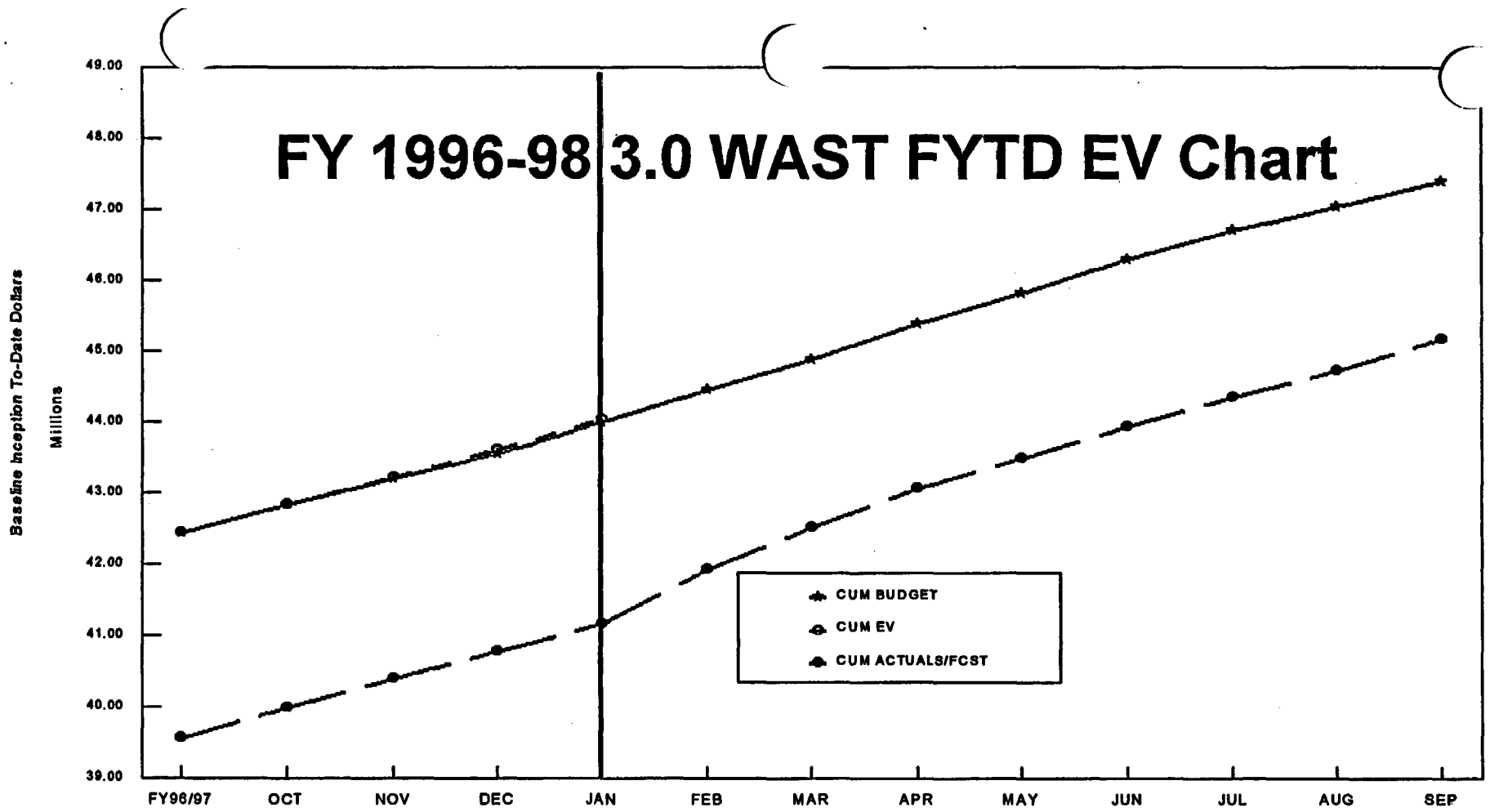
March 13, 1998

COMPARISON OF ORIGINAL CONTRACTOR BUDGET BASELINE (CBB) TO CURRENT CBB ($K)

(Cumulative for FY96, 97 and 98)

CBB (Dec. DPR):	($) 47,612
Changes: None	($) 0
CBB(current CBB):	($) 47,612

3/10/98
Bokhari



	FY96/97	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FY99
MONTHLY BUD	42457	394	360	354	458	441	442	503	441	474	399	348	344	196
MONTHLY EV	42457	396	388	378	438									
MONTHLY ACT	39563	429	407	375	399									
MONTHLY FCST	39563	429	407	375	399	771	578	549	433	455	406	387	439	196
SCHED VAR	0	2	28	24	-20									
COST VAR	2894	-33	-19	3	39	0	0	0	0	0	0	0	0	0
CUM BUDGET	42457	42851	43211	43565	44023	44464	44906	45409	45850	46324	46723	47071	47415	47611
CUM EV	42457	42853	43241	43619	44057									
CUM ACTUAL	39563	39992	40399	40774	41173									
CUM FCST	39563	39992	40399	40774	41173	41944	42522	43071	43504	43959	44365	44752	45191	45387
ITD SV	0	2	30	54	34									
ITD CV	2894	2861	2842	2845	2884	0	0	0	0	0	0	0	0	0

3/10/98
Bokhari

U. S. Department of Energy
Cost Performance Report-Work Breakdown Structure (Format 1)
FY-98 Month Ending January 1998

1. Title	2. Reporting Period	3. Dollars Expressed in Thousands Escalated
Waste Acceptance, Storage and Transportation	01-Jan-1998 to 31-Jan-1998	6. Report Date
4. Participant Name & Address	5. Cost Plan Date	7. Manager's Signature
OCRWM		

8. WBS Elements	FY98 January					FY98 ITD					FY98 At Completion of Work Year End		
	Budgeted Cost		Actual Cost of Work Perf	Variance		Budgeted Cost		Actual Cost of Work Perf	Variance				
Summary Level: 1 Detail Level: 2	Work Sched	Work Perf		Sched	Cost	Work Sched	Work Perf		Sched	Cost	Budget	Latest Revised Estimate	Var.
3.1 Transportation	253	253	194	0	59	831	831	653	0	178	2939	2806	133
3.2 Interim Storage Facility (ISF)	110	90	124	-20	-34	388	422	489	34	-67	1100	1111	-11
3.3 Project Management & Administration	95	95	74	0	21	347	347	288	0	59	1115	1063	52
3.4 Casks/Canisters Tech. Development	0	0	0	0	0	0	0	0	0	0	0	0	0
9. Contractor Budget Base	**458**	**438**	**392**	**-20**	**46**	**1566**	**1600**	**1430**	**34**	**170**	**5154**	**4980**	**174**
10. Financial & Tech. Assistance													
11. Undistributed Budget											12500	12500	0
13. Fee											211	195	16
14. Baseline Adjustment/Contingency													0
15. Perf. Measurement Baseline											**17865**	**17675**	**190**
16. Management Reserve											1452	1452	0
17. Other											0	0	0
18. Project Budget Base											**19317**	**19127**	**190**

3/10/98
Bokhari

U.S. Department of Energy
Cost Performance Report-Work Breakdown Structure (Format 1)
FY96-98 Month Ending January 1998

1. Title	2. Reporting Period	3. Dollars Expressed in Thousands Escalated
Waste Acceptance, Storage and Transportation	01-Jan-1998 to 31-Jan-1998	6. Report Date
4. Participant Name & Address	5. Cost Plan Date	7. Manager's Signature
OCRWM		

8. WBS Elements	January 1998					FY96-98 to Date					FY96-98 At Completion of Work Year End		
	Budgeted Cost		Actual Cost of Work Perf	Variance		Budgeted Cost		Actual Cost of Work Perf	Variance				
Summary Level: 1 Detail Level: 2	Work Sched	Work Perf		Sched	Cost	Work Sched	Work Perf		Sched	Cost	Budget	Latest Revised Estimate	Var.
3.1 Transportation	253	253	217	0	36	15660	15660	13530	0	2130	17768	16201	1567
3.2 Interim Storage Facility (ISF)	110	90	124	-20	-34	8522	8556	8376	34	180	9234	9129	105
3.3 Project Management & Administration	95	95	58	0	37	4211	4211	3898	0	313	4979	4679	300
3.4 Casks/Canisters Tech. Development	0	0	0	0	0	15630	15630	15369	0	261	15630	15378	252
9. Contractor Budget Base	**458**	**438**	**399**	**-20**	**39**	**44023**	**44057**	**41173**	**34**	**2884**	**47611**	**45387**	**2224**
10. Financial & Tech. Assistance													
11. Undistributed Budget											12500	12500	0
13. Fee											818	673	145
14. Baseline Adjustment/Contingency													0
15. Perf. Measurement Baseline											**60929**	**58560**	**2369**
16. Management Reserve											1499	1452	47
17. Other											2592	1790	802
18. Project Budget Base											**65020**	**61802**	**3218**

WBS 3.0 VARIANCE ANALYSIS

($000)

WBS	TITLE	BCWP	BCWS	ACWP	SV	CV
3.0	WAST	44,023	44,057	41,173	34	2,884

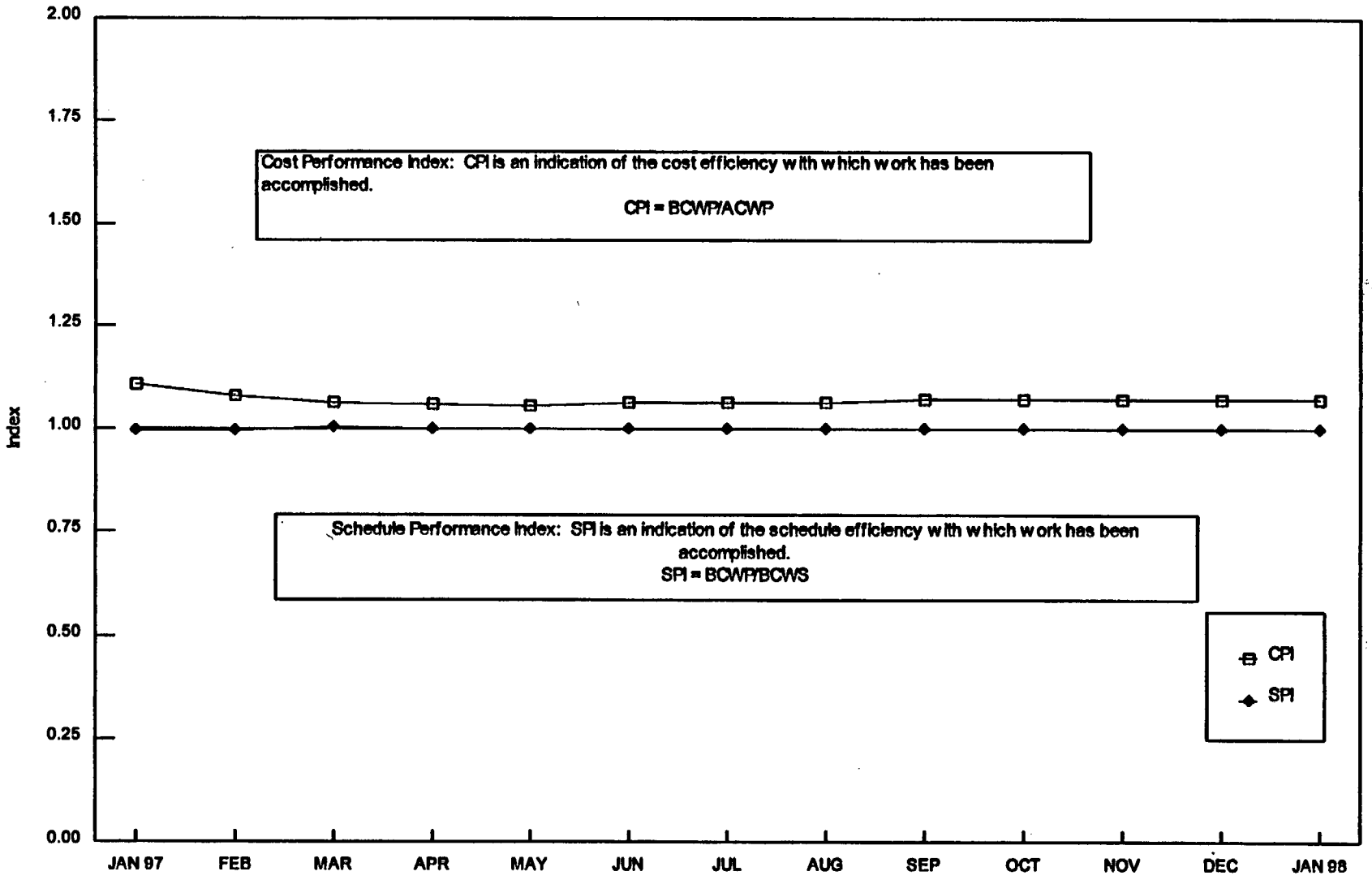
Schedule Variance: The Enhanced-Handling Equipment Feasibility Assessment, CISF Support Facilities Trade-off Study and Report on Additional CISF Options are ahead of schedule.

Cost Variance: The cost variance reflects FY96 and FY97 work completed below budget. FY97 costs for minor participants (Cooperative Agreements and EIA) are being costed later than planned.

Impact: None.

Corrective Action: None.

FY 1997/98 3.0 WAST CPI/SPI GRAPH



FY 1998	JAN 97	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN 98
CPI	1.107	1.082	1.062	1.059	1.056	1.062	1.063	1.065	1.073	1.072	1.070	1.070	1.070
SPI	0.998	0.998	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.001	1.001

3/10/98
Bokhari

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

OFFICE OF QUALITY ASSURANCE

PRESENTED TO

LAKE BARRETT, Acting Director

PRESENTED BY

DONALD G. HORTON

Director, Office of Quality Assurance

March 13, 1998

PRIORITY ACTIVITIES

- CONTINUE TO PROVIDE QA SUPPORT TO ALL AFFECTED ORGANIZATIONS TO FACILITATE COMPLETION OF MAJOR MILESTONES

- SUPPORT THE RESOLUTION OF PROCUREMENT, SOFTWARE AND DATA ISSUES DOCUMENTED AS SIGNIFICANT ISSUES ADVERSE TO QUALITY

- INITIATE EFFORTS TO CONSOLIDATE OCRWM WIDE PROGRAM PROCEDURES WHERE PRACTICAL AND WITHOUT IMPACT TO VIABILITY ASSESSMENT

- PERFORM SCHEDULED AUDITS, SURVEILLANCES, AND QA MANAGEMENT ASSESSMENTS AS PART OF QA DELIVERABLES

- PROVIDE PERSONNEL AS NEEDED TO SUPPORT PERFORMANCE ASSESSMENT AND OTHER CRITICAL ACTIVITES FOR VIABILITY ASSESSMENT

CHANGES SINCE LAST DPR
November-January

NONE

ACCOMPLISHMENTS

December-February

- COMPLETED THE FY97 QA PROGRAM SUMMARY REPORT
- COMPLETED THE QA MANAGEMENT ASSESSMENTS AT LAWRENCE BERKELEY AND LAWRENCE LIVERMORE NATIONAL LABORATORIES, AND AT THE U.S. GEOLOGICAL SURVEY
- OQA MANAGEMENT TRAVELED TO THE NATIONAL LABORATORIES AND THE USGS TO MEET WITH MANAGEMENT PERSONNEL AND OBTAIN A BETTER UNDERSTANDING OF LABS/USGS ISSUES
- PROVIDED SUPPORT TO THE USGS IN THE CLOSE-OUT OF NCRs BACKLOGGED SINCE 1995
- PRESENTED A PAPER ON THE CONSOLIDATION TO ONE QA PROGRAM AT THE AMERICAN SOCIETY OF QUALITY ENVIRONMENTAL CONFERENCE

ACCOMPLISHMENTS
December-February

• AUDITS	10	(1)
• SURVEILLANCES	9	
• DEFICIENCIES		
• IDENTIFIED	47	
• CLOSED	48	
• QA DOCUMENTS		
• DEVELOPED	26	(2)
• REVIEWED	487	(3)
• INSPECTION AND TEST REPORTS		
• INSPECTIONS	200	(4)
• TESTS	125	(4)

(1) FIVE OF THESE WERE SUPPLIER AUDITS
(2) INCLUDEDS DOCUMENT REVISIONS
(3) INCLUDES DESIGN DOCUMENTS, DATA PACKAGES, PURCHASE ORDERS, TEST PLANS, JOB PACKAGES, SCIENTIFIC NOTEBOOKS, ETC.
(4) APPROXIMATE

MAJOR FY98 DELIVERABLES
(LEVEL 1 AND SUPPORTING LEVEL 2)

DELIVERABLE	LEVEL	BASELINE DATA	FORECAST
QA MANAGEMENT ASSESSMENT	1	09-30-98	09-30-98
FY97 QA PROGRAM ANNUAL SUMMARY REPORT	2	03-01-98	Complete 01-13-98
PERFORM REGULATORY REQUIRED INTERNAL QA PROGRAM COMPLIANCE BASED AUDITS	2	09-30-98	09-30-98
PERFORM REGULATORY REQUIRED SUPPLIER AUDITS	2	09-30-98	09-30-98

DPR ACTION ITEMS

- **NONE**

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

OFFICE OF QUALITY ASSURANCE
PERFORMANCE MEASUREMENT

PRESENTED TO

LAKE BARRETT, Acting Director

PRESENTED BY

DONALD G. HORTON,
Director, Office Of Quality Assurance

March 13, 1998

COMPARISON OF ORIGINAL CONTRACTOR BUDGET BASELINE (CBB) TO CURRENT CBB ($K)

CBB:	**($)34,016**
CBB(FY98):	**($) 9,629**
Changes(FY98):	**($) -0-**
CBB(current CBB):	**($)43,645**

U.S. Departm ergy
Cost Performance Report - Work own Structure (Format 1)

1. Title	2. Reporting Period	3. Dollars Expressed in Thousands Escalated
Waste Management System	01-Jan-1998 to 31-Jan-1998	6. Report Date
4. Participant Name & Address	5. Cost Plan Date	7. Manager's Signature
OCRWM		

8. WBS Elements	Current Period					FY96-98 to Date					FY96-98 At Completion of Work Year End		
	Budgeted Cost		Actual Cost of Work Perf	Variance		Budgeted Cost		Actual Cost of Work Perf	Variance				
Summary Level: 1 Detail Level: 2	Work Sched	Work Perf		Sched	Cost	Work Sched	Work Perf		Sched	Cost	Budget	Latest Revised Estimate	Var.
9.1.1 QA Programs HQ/OWAST	60	60	73	0	-13	2503	2503	2292	0	211	3084	2873	211
9.1.2 YM Quality Assurance	636	636	694	0	-58	15006	15006	14754	0	252	20850	20598	252
9.1.3 M & O Quality Assurance	0	0	3	0	-3	18686	18686	17596	0	1090	18686	17646	1040
9.1.4 QA Management Assessment	25	25	24	0	1	745	745	755	0	-10	1025	1035	-10
9. Contractor Budget Base	**721**	**721**	**794**	**0**	**-73**	**36940**	**36940**	**35397**	**0**	**1543**	**43645**	**42152**	**1493**
10. Financial & Tech. Assistance													
11. Undistributed Budget													
13. Fee													
14. Baseline Adjustment/Contingency													
	721	**721**	**794**	**0**	**-73**	**36940**	**36940**	**35397**	**0**	**1543**	**43645**	**42152**	**1493**
15. Perf. Measurement Baseline													
16. Management Reserve													
17. Other													
18. Project Budget Base	**721**	**721**	**794**	**0**	**-73**	**36940**	**36940**	**35397**	**0**	**1543**	**43645**	**42152**	**1493**

WBS 9.1 VARIANCE ANALYSIS
FY98 ONLY ($000)

WBS	TITLE	BCWP	BCWS	ACWP	SV	CV
9.1	Quality Assurance	2,924	2,924	2,828	0	46

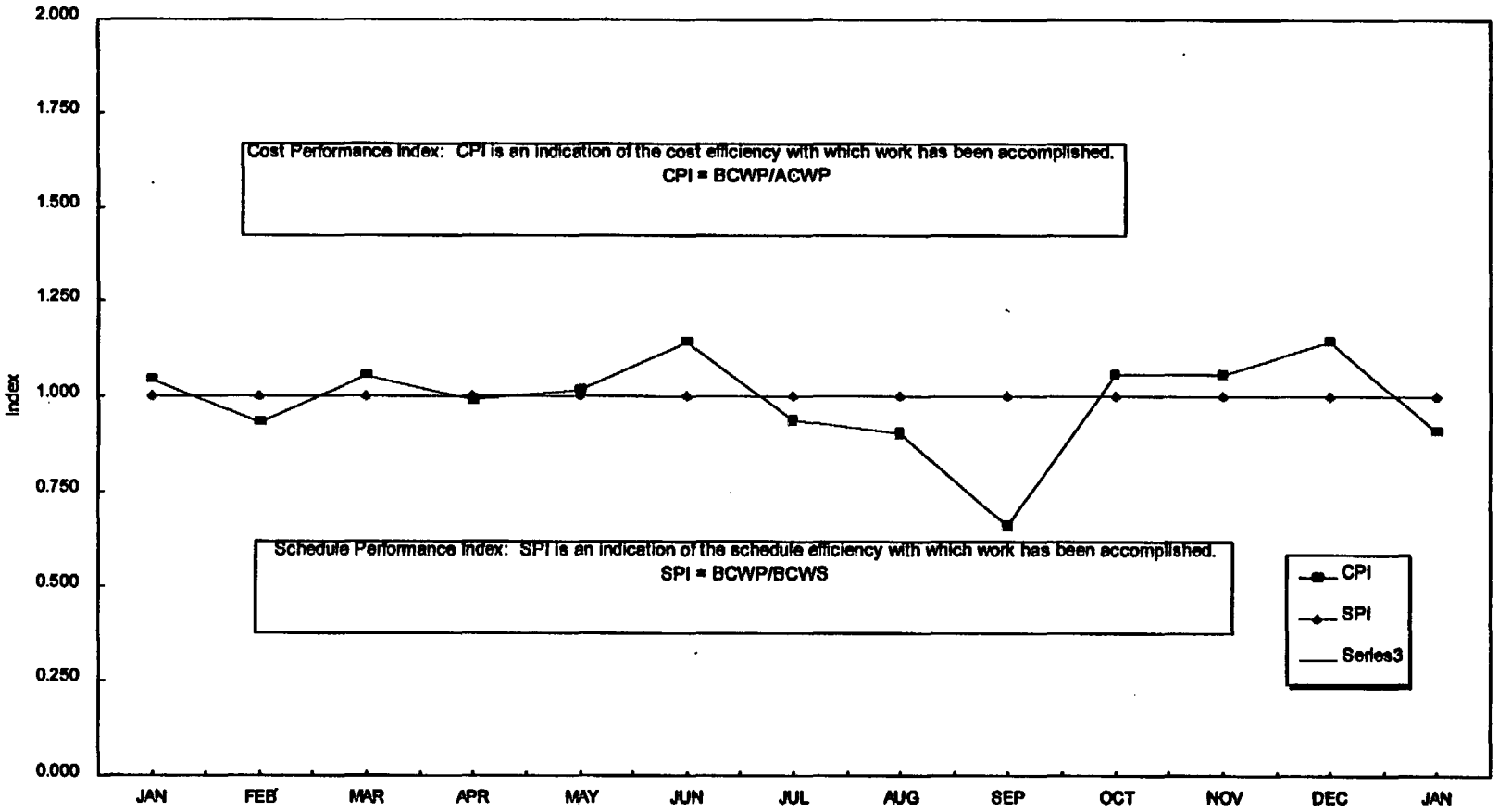
Cost Variance: 3.2%

Impact: None

Corrective Action: None

PERFORMANCE ANALYSIS FY 1997/1998

WBS 9.1, CPI & SPI OVERVIEW



FY 1997/8	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN
CPI	1.042	0.928	1.055	0.992	1.018	1.139	0.936	0.903	0.661	1.058	1.057	1.145	0.908
SPI	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

Director's Program Review
Program Management and Administration

PRESENTED TO

Lake Barrett, Acting Director

PRESENTED BY

Sam Rousso, Director
Office of Program Management
and Administration

March 13,1998

PRIORITY ACTIVITIES

- Complete TSLCC and Fee Adequacy Analyses
- Approve the EM/RW MOA
- Disposition of DOE Nuclear Materials
- Develop Safeguards and Security Requirements
- Respond to the NWTRB
- Prepare for Semi-annual NRC Testimony
- Implement Strategic System Management Policy

PRIORITY ACTIVITIES

- Coordinate Completion of OCRWM Program Plan
- Transmit the FY 1997 Annual Report to Congress
- Issue FY 1999 IM Multi-Year Program Plan
- Manage E-mail as a Record
- Finalize Year 2000 Initiatives
- Accommodate RIF Impacts and Relocations
- Support Transfer of M&O Contract Responsibility

CHANGES SINCE LAST DPR
December - February

- **WAD 98-50 Revision 2 Added $50,000 to the WBS 9.2.3 Contractor Budget Baseline for FY 1998 M&O Support to the Viability Assessment Communications Working Group**

ACCOMPLISHMENTS
December - February

- **Systems Engineering**
  - **Incorporated Plutonium Disposition into the CRWMS Baseline**
  - **Issued CRWMS Requirements Document Revision 4 for PBCCB Review and Approval**
  - **Completed the Parametric Contingency Study on OCRWM Cash Flow**
  - **Developed Two Project Agreements with Japan's Power Reactor and Nuclear Fuel Development Corporation**

ACCOMPLISHMENTS
December - February

- **Regulatory**
  - Developed RW-1's Presentation to the NWTRB
- **Program Management**
  - Submitted the FY 1999 Budget Request
- **Planning and Administration**
  - Submitted OCRWM's FY 1997 Audited Financial Statements to CFO

ACCOMPLISHMENTS
December - February

- Transmitted OCRWM 5-Year Planning Summary and OCRWM Commitments for FY 1999 DOE Annual Performance Plan to CFO/PO

- Completed RW-1 FY 1998 Performance Agreement with the Secretary and OCRWM input to Secretary's Performance Agreement with the President

- Complied with Year 2000 certification and reporting requirements

FY 1998 Major Deliverables

Description	Plan Date	Forecast/ Actual Date
OCRWM Issues Approved Strategic System Management Policy	01/02/97	03/31/98
Submit audited NWF Financial Statements to DOE CFO	01/15/98	01/28/98 A
Revise CRD to Include Plutonium BCP	03/31/98	03/31/98
Submit OCRWM Annual Report to Congress	04/15/98	04/15/98
Submit FY 2000 OMB Request to CFO	09/03/98	09/03/98
Deliver TSLCC and Fee Adequacy Report	11/30/98	09/15/98

DPR ACTION ITEMS

- The M&O review FY 1998 planned versus actual staffing, and brief RW-1 on corrective actions and potential impacts before February
  - Closed; briefing held January 29, 1998
- RW-50 report to RW-1 on how recommendations from past GAO and IG reports are tracked to ensure that they are completed
  - Closed; February 11, 1998 memo to RW-1

DPR ACTION ITEMS

- **RW-50 find a way to track external activities without them being Level 1 Milestones; provide the NRC with the dates that we need actions or products from them for us to meet our follow-on scheduled activities and milestones**
  - **In process; Updating the WAST baseline**
- **RW-50 review CIS to determine its need and value to the OCRWM mission**
  - **Closed; February 20, 1998 memo to RW-1**

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

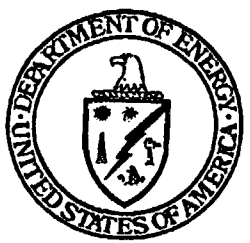
DIRECTOR'S PROGRAM REVIEW

Program Management & Administration Performance Measurement

PRESENTED TO

LAKE BARRETT, Acting Director

OCRWM



PRESENTED BY

Vic Trebules, Director

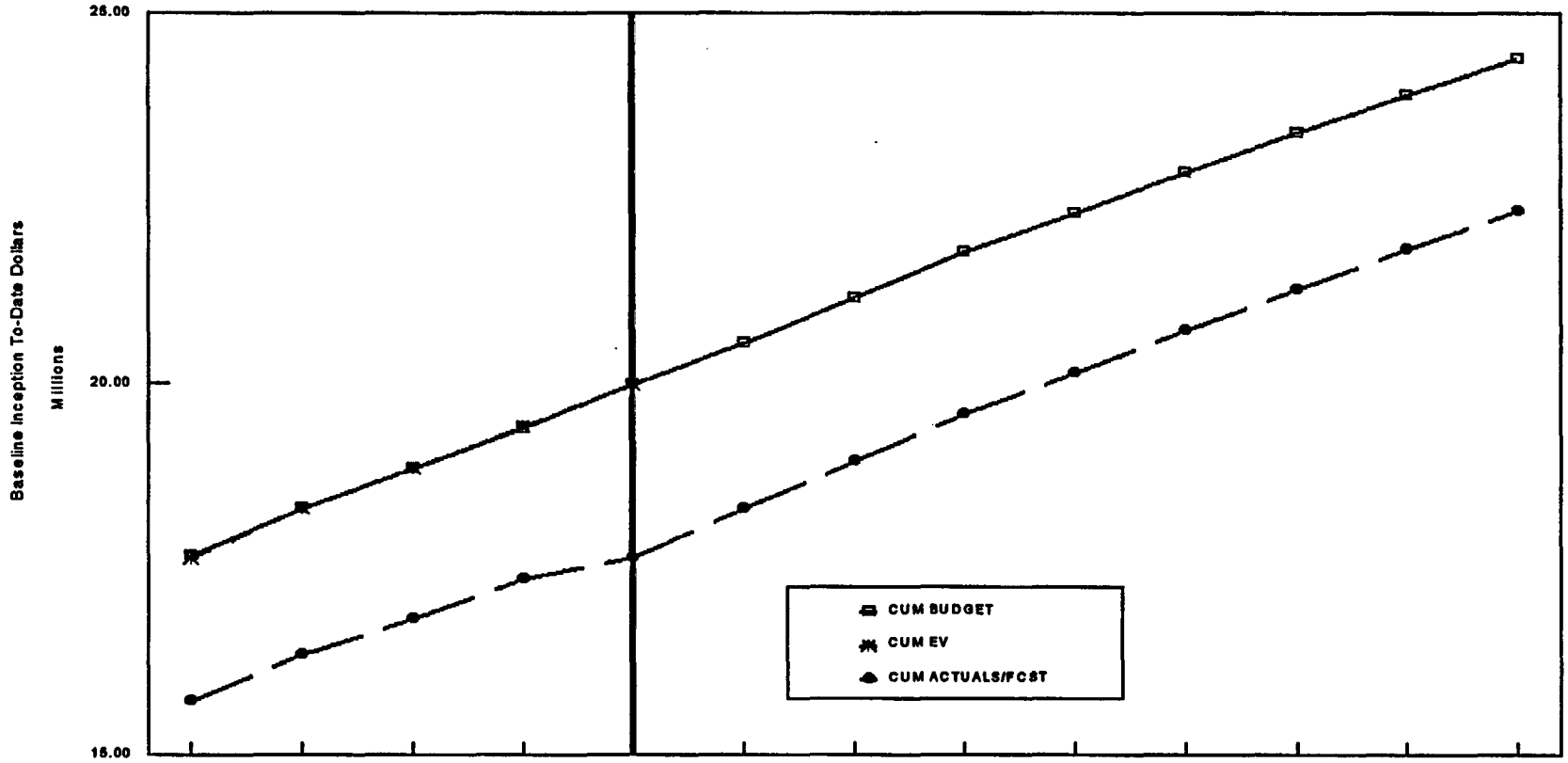
PM&A Program Management Division

March 13, 1998

COMPARISON OF PRIOR BUDGET BASELINE TO CURRENT BUDGET BASELINE ($K)

	WBS 9.2 PM&I	+	WBS 9.3 HR&A	=	PM&A
Baseline Last DPR	24,367		30,788		55,155
Changes since Last DPR	+ 50		0		+ 50
JAN (FY98)	24,417		30,788		55,205

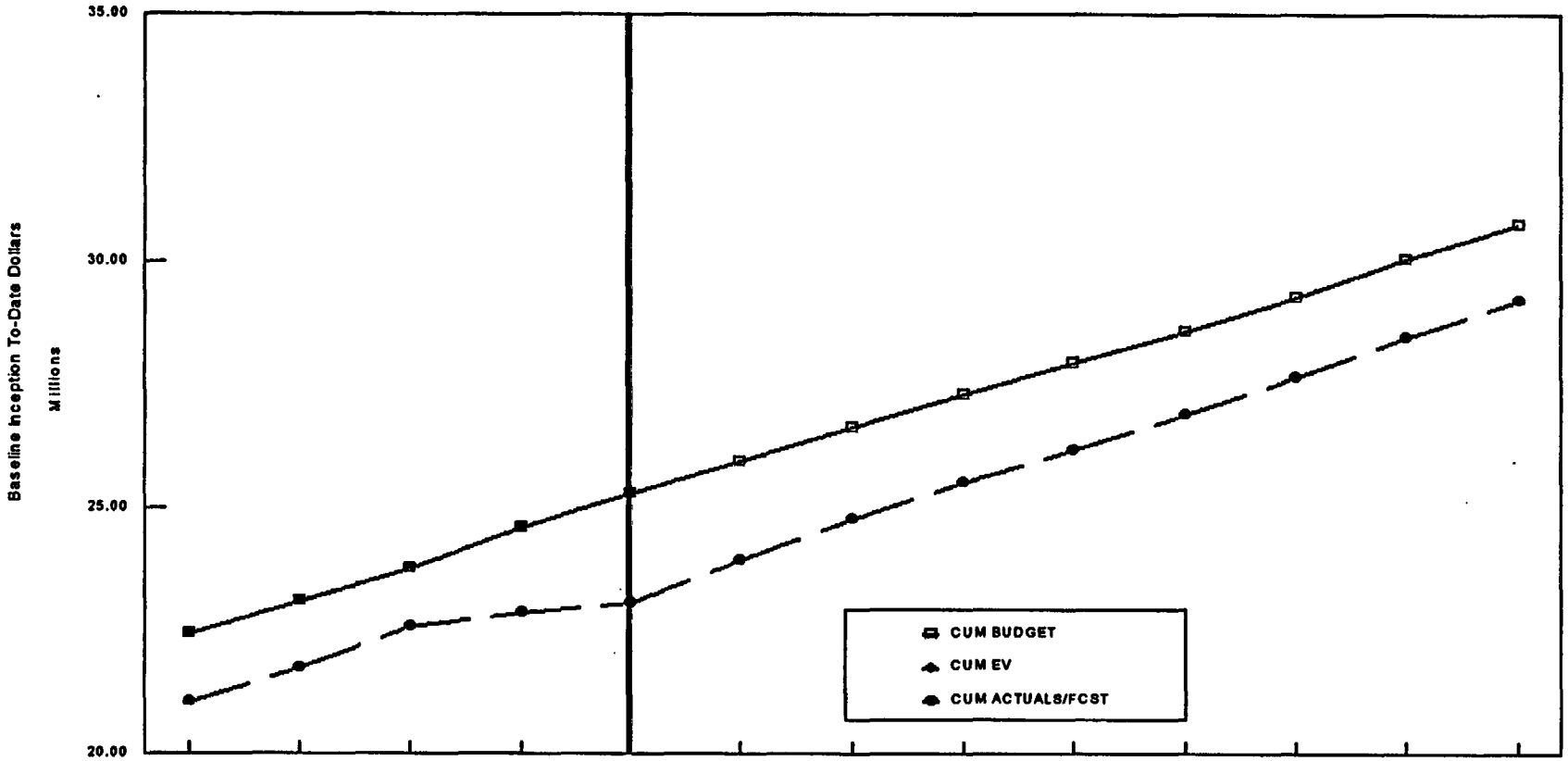
FY1996-98 9.2 PM&I FYTD EV Chart



	FY96/97	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MONTHLY BUD	17676	640	544	537	591	575	614	606	532	562	535	508	497
MONTHLY EV	17633	676	551	549	591								
MONTHLY ACT	15726	620	484	535	288								
MONTHLY FCST						664	628	652	544	585	565	538	525
SCHED VAR	-43	36	7	12	0								
COST VAR	1907	56	67	14	303								
CUM BUDGET	17676	18316	18860	19397	19988	20563	21177	21783	22315	22877	23412	23920	24417
CUM EV	17633	18309	18860	19409	20000								
CUM ACTUAL	15726	16346	16830	17365	17653								
CUM FCST						18317	18945	19597	20141	20726	21291	21829	22354
ITD SV	-43	-7	0	12	12								
ITD CV	1907	1963	2030	2044	2347								

3/12/98
DC9712PM

FY1996-98 9.3 HRCA FYTD EV Chart



	FY96/97	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MONTHLY BUD	22469	653	678	843	685	661	679	667	639	657	694	772	692
MONTHLY EV	22469	653	678	843	685								
MONTHLY ACT	21079	698	837	276	191								
MONTHLY FCST						874	853	728	683	714	742	825	737
SCHED VAR	0	0	0	0	0								
COST VAR	1390	-45	-159	567	494								
CUM BUDGET	22469	23121	23799	24642	25327	25988	26667	27334	27973	28630	29324	30096	30788
CUM EV	22469	23121	23799	24642	25327								
CUM ACTUAL	21079	21777	22614	22890	23089								
CUM FCST						23963	24816	25544	26227	26941	27683	28508	29245
ITD SV	0	0	0	0	0								
ITD CV	1390	1345	1186	1753	2238								

3/12/98
DC9712PM

FY98 PROJECT BUDGET PERFORMANCE
PM&A - January 1998

U.S Department of Energy
Cost Performance Report - Work Breakdown Structure (Format 1)

1. Title	2. Reporting Period	3. Dollars Expressed in Thousands
Program Support	01-Jan-1998 to 31-Jan-1998	6. Report Date Feb-98
4. Participant Name & Address	5. Cost Plan Date	7. Manager's Signature
OCRWM	Feb-98	

8. WBS Elements	Current Period					FY98 to Date					FY98 At Completion of Work Year End		
	Budgeted Cost		Actual	Variance		Budgeted Cost		Actual	Variance				
Summary Level: 1 Detail Level: 2	Work Sched	Work Perf	Cost of Work Perf	Sched	Cost	Work Sched	Work Perf	Cost of Work Perf	Sched	Cost	Budget	Latest Revised Estimate	Var.
9.2 Program Management & Integration	591	591	409	0	182	2316	2316	1887	0	429	6745	6468	277
9.3 Human Resources & Administration	685	685	717	0	-32	2859	2859	2255	0	604	8320	8322	-2
9. Contractor Budget Base	**1276**	**1276**	**1126**	**0**	**150**	**5175**	**5175**	**4142**	**0**	**1033**	**15065**	**14790**	**275**
10. Federal Cost & Budget													
11. Undistributed Budget													
13. Fee											453	453	0
14. Baseline Adjustment/Contingency													
15. Perf. Measurement Baseline											**15518**	**15243**	**275**
16. Management Reserve													
17. Other													
18. Program Budget Base											15518	15243	275

3/12/98
DC9712PM

FY 96-98 PROJECT BUDGET PERFORMANCE
PM&A - January 1998

U.S Department of Energy
Cost Performance Report - Work Breakdown Structure (Format 1)

1. Title	2. Reporting Period	3. Dollars Expressed in Thousands Escaleted
Program Support	01-Jan-1998 to 31-Jan-1998	6. Report Date Feb-98
4. Participant Name & Address	5. Cost Plan Date	7. Manager's Signature
OCRWM	Feb-98	

8. WBS Elements	Current Period					FY96-98 to Date					FY96-98 At Completion of Work Year End		
	Budgeted Cost		Actual	Variance		Budgeted Cost		Actual	Variance				
Summary Level: 1 Detail Level: 2	Work Sched	Work Perf	Cost of Work Perf	Sched	Cost	Work Sched	Work Perf	Cost of Work Perf	Sched	Cost	Budget	Latest Revised Estimate	Var.
9.2 Program Management & Integration	591	591	288	0	303	19988	20000	17653	12	2347	24417	22354	2063
9.3 Human Resources & Administration	685	685	191	0	494	25327	25327	23089	0	2238	30788	29245	1543
9. Contractor Budget Base	**1276**	**1276**	**479**	**0**	**797**	**45315**	**45327**	**40742**	**12**	**4585**	**55205**	**51599**	**3606**
10. Federal Cost & Budget											**75647**	**72682**	**2965**
11. Undistributed Budget											0	0	0
13. Fee											3601	3385	216
14. Baseline Adjustment/Contingency											807	0	0
15. Perf. Measurement Baseline											**135260**	**127666**	**6787**
16. Management Reserve											3679	3679	0
17. Other											1391	1757	-366
18. Program Budget Base											140330	133102	6421

PM&A VARIANCE ANALYSIS

($000)

WBS	TITLE	BCWS	BCWP	ACWP	SV	CV
9.2 & 9.3	PM&A	45315	45327	40742	12	4585

Cost Variance:

The cost variance reflects FY96 and FY97 work completed below budget.

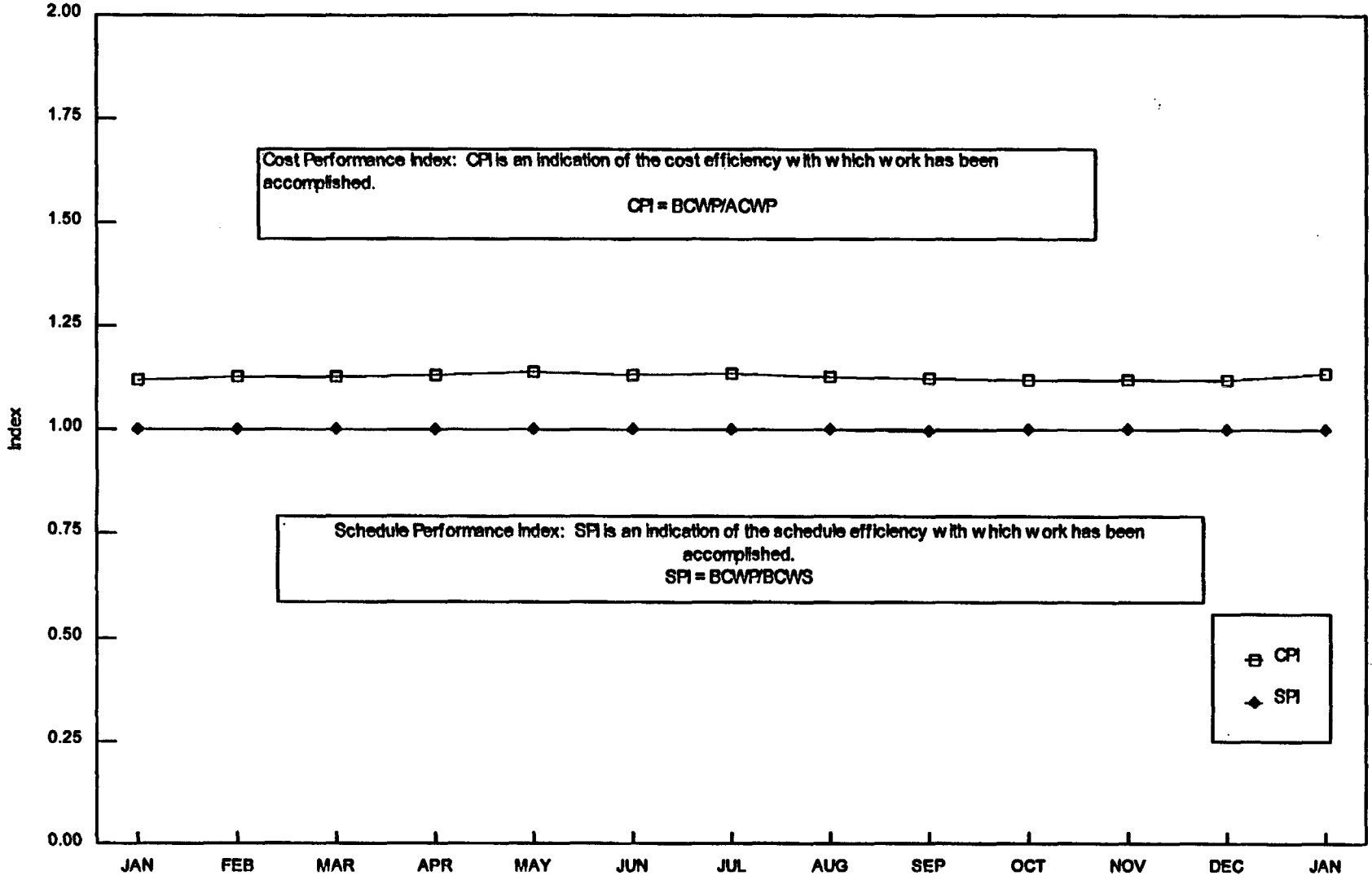
Impact:

- None

Corrective Action:

- None

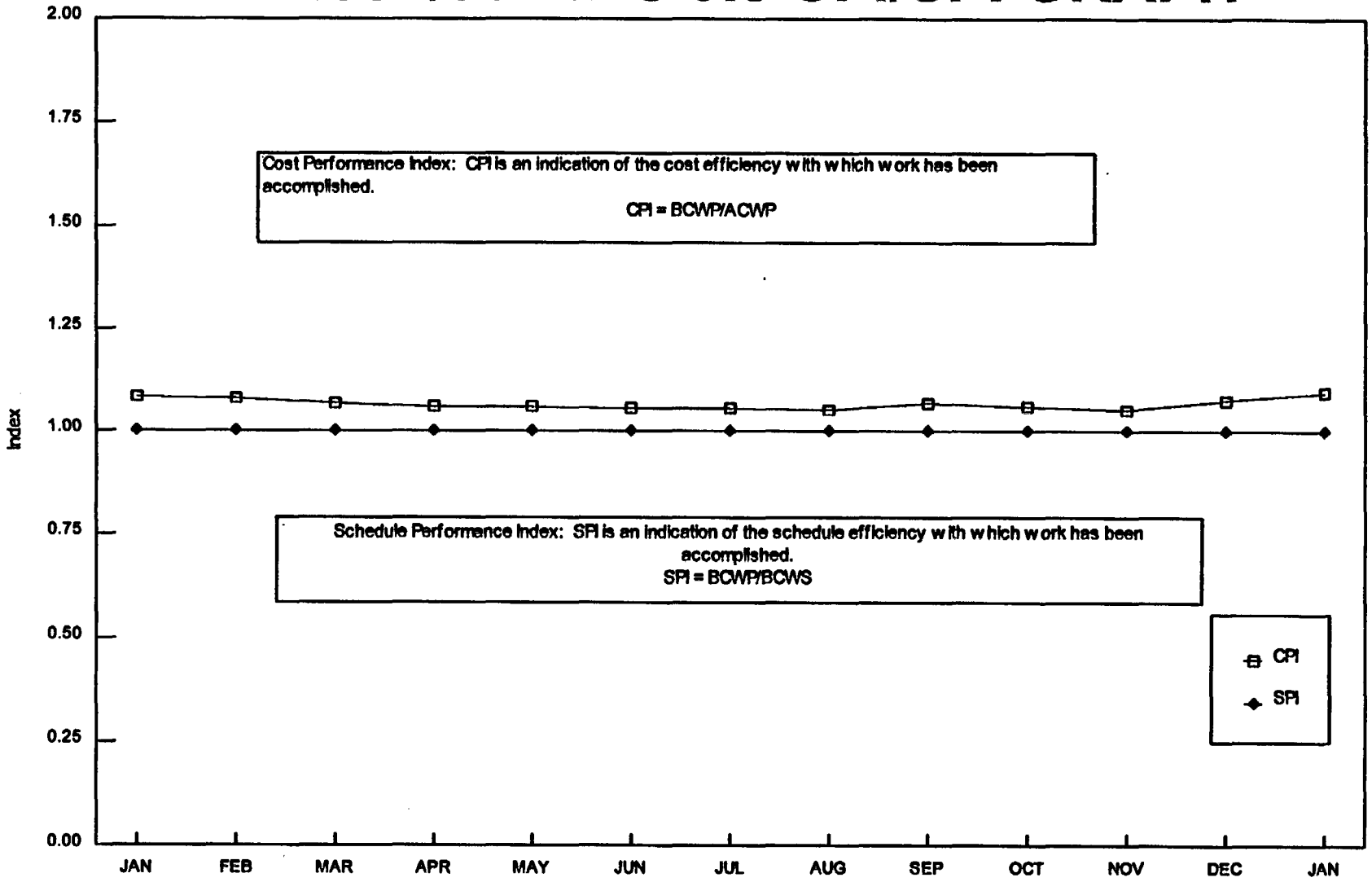
FY 1997/98 WBS 5.2 CPI/SPI GRAPH



FY 97/98	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN
CPI	1.117	1.126	1.127	1.132	1.137	1.132	1.134	1.126	1.121	1.120	1.121	1.118	1.133
SPI	1.000	1.000	1.000	1.000	1.000	0.999	0.999	0.999	0.998	1.000	1.000	1.001	1.001

3/12/98
DC9712PM

FY 1997/98 WBS 9.3 CPI/SPI GRAPH



FY 97/98	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN
CPI	1.083	1.079	1.066	1.061	1.061	1.056	1.055	1.053	1.066	1.062	1.052	1.077	1.097
SPI	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

3/12/98
DC9712PM